

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF TEXAS
3 MARSHALL DIVISION

4 UNITED SERVICES AUTOMOBILE (CAUSE NO. 2:20-CV-319-JRG
5) (Lead)
6 ASSOCIATION, (CAUSE NO. 2:21-CV-110-JRG
7)
8 Plaintiff, (
9)
10 vs. (
11)
12 PNC BANK, N.A., (MAY 11, 2022
13) MARSHALL, TEXAS
14 Defendant. (8:30 A.M.

15 VOLUME 3

16 TRIAL ON THE MERITS

17 BEFORE THE HONORABLE RODNEY GILSTRAP
18 UNITED STATES CHIEF DISTRICT JUDGE

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1 THE COURT: Be seated, please.

2 Counsel, we have obviously several matters to take up
3 that need to be included on the record, and we're going to do
4 that at this time.

5 First, I'm going to address PNC Bank's motion for
6 mistrial that was filed yesterday with responsive briefing
7 having been filed overnight. I've considered all the issues
8 involved, I've considered exactly what happened yesterday
9 since I was sitting here on the bench right here in the middle
10 of it, and I am persuaded that the conduct complained of by
11 PNC does not rise to the heightened level necessary to declare
12 a mistrial, and I'm going to deny the motion for mistrial.

13 I am going to instruct the jury to completely disregard
14 that single question and answer that was improperly played
15 yesterday.

16 And I'll also note for the record that was obvious to the
17 Court that both Mr. Sheasby for USAA and Mr. Stone for PNC had
18 written transcripts of the deposition testimony and should
19 have seen this inadvertent question and stopped it from being
20 played in the first place.

21 And I think there is at least -- let me just say it this
22 way. I'm not sure either side has completely unclean hands or
23 completely clean hands in this situation. I don't think
24 anything was done maliciously. I don't think anything was
25 done with an intent to deceive or to act improperly. I think

1 both sides, including counsel for both sides, had ample
2 opportunities to prevent this from happening in the first
3 place and the fact that it did happen falls on both sides.

4 I understand how things become hectic in a jury trial.
5 But with regard to this issue, the responsibility to see that
6 it didn't happen, the checks and balances between both sides,
7 the looking over each other's shoulders, that all failed here,
8 and it failed open the Plaintiff's side and it failed on the
9 Defendant's side as well.

10 Nonetheless, at the end of the day, the very limited
11 extent of the single question and answer, the confusion that
12 erupted immediately by both counsel jumping up and trying to
13 stop the video, I have real doubts in my mind how much of
14 this, if any, the jury really heard or internalized.

15 But, nonetheless, at the end of the day and considering
16 what actually happened in court and considering the motion and
17 the responsive briefing, I'm going to deny the motion for
18 mistrial, I'm going to instruct the jury, and we're going to
19 proceed.

20 MR. STONE: Your Honor, may I be heard to correct
21 the record with respect to one set of facts that the Court
22 just read into the record?

23 THE COURT: Well, it's 22 minutes after 8:00, Mr.
24 Stone. I've told the jury we'd start at 8:30.

25 MR. STONE: I understand.

1 THE COURT: I have a myriad of issues that are not
2 my fault that are in front of me I have to deal with.

3 MR. STONE: I understand, Your Honor.

4 THE COURT: I'm not going to cut you have off, but I
5 don't have time for lengthy argument, if you'd like to make a
6 short statement.

7 MR. STONE: I would, Your Honor. Thank you very
8 much.

9 The Court indicated that it understood I think probably
10 from the briefing that was filed by the Plaintiff that in
11 theory we had the transcript of what was going to be played
12 yesterday and, in fact, we did not. We had asked that 10:00
13 p.m. the night before for the run sheet of what Plaintiffs
14 intended to prepared to read or play into the record and we
15 did not receive one.

16 The run sheet that we had which conformed to the filing
17 that was made with the Court at 7:00 a.m. yesterday morning,
18 the run sheet that conformed with that filing, did not have
19 the clip that was played to the jury. So in my transcript,
20 and I have my binder and can make that an exhibit, in my
21 transcript that portion does not appear.

22 Earlier, as the Court will recall, during the course of
23 playing the deposition testimony of Mr. Goodstein, there was
24 an instance where another question and answer was played which
25 I said was not in my transcript and I stood up and objected.

1 At that time Mr. Sheasby showed me his run sheet because
2 I inquired what is the next question and answer, have we
3 already just heard this or are we going hear more of what was
4 not in the designated transcript that we had been given and
5 expected to be played in accordance with the filing that had
6 been made at 7:00 in the morning.

7 Mr. Sheasby showed me that page of his run sheet which,
8 after the question and answer which were not part of what was
9 designated were played, went back to conformity with my run
10 sheet. I then sat down, Your Honor. Mr. Sheasby offered
11 to -- we could go to a different witness. Your Honor
12 indicated that you didn't want to do that.

13 I determined that the run sheet that I had appeared to be
14 correct from that point on. I sat down. You indicated that
15 we had withdrawn our objection to the one question and answer
16 that had been played that was not on the run sheet, and we
17 then proceeded.

18 My run sheet that I had, the one that I had when we had
19 the first issue and then when we had the second issue, did not
20 have this on it. Their efforts to make those counter
21 counterdesignations, which I understand that they were, were
22 withdrawn at 6:02 a.m. yesterday morning. So we had no run
23 sheets that had that information on it.

24 THE COURT: All right. Thank you, Mr. Stone.

25 MR. STONE: So I want that for the record to be

1 clear. Thank you, Your Honor.

2 THE COURT: Well, let me say this. Both sides
3 should have had anything that was going to be played in front
4 of them before the video was played. And if the Defendants
5 asked for something to reflect that from the Plaintiff and
6 hadn't received it, should have raised it with the Court
7 before the video was played and told me that you've not seen
8 it, you've not had a chance to check it, and you want them to
9 be required to produce it before the video's played.

10 There are checks and balances in this process, which
11 failed in this case. I am simply observing for the record
12 that both sides had a responsibility to see that those checks
13 and balances don't fail. And if there's a lack of compliance
14 or cooperation, both sides are in a position to raise that
15 with the Court and have it dealt with before any uncertainty
16 plays out. That didn't happen here.

17 Nonetheless, the ultimate issue revolves around the
18 substance of the single question and answer that was
19 inadvertently played, and on reflection and consideration, I
20 am persuaded that it does not create a level of harm or
21 prejudice that would require a mistrial and I am convinced
22 that a direct instruction from the Court is adequate to
23 address any prejudice and avoid the granting of a mistrial.

24 Therefore, your motion's denied.

25 MR. STONE: Thank you, Your Honor.

1 THE COURT: All right. Let's turn next to the
2 motion to quash the trial subpoena of non-party Michael
3 Morris. I have likewise had this raised during the trial
4 yesterday. I won't go through the disagreements between the
5 parties as to what they did or didn't agree to among
6 themselves.

7 Suffice it to say, Mr. Morris was served with a trial
8 subpoena I believe yesterday, and under that trial subpoena he
9 would either be required to testify late today or early
10 tomorrow. Mr. Morris was made available at an earlier trial
11 date for this case in April, which did not come to pass based
12 on the Court's other cases and scheduling. Nonetheless, he's
13 known since April he was going to be called to testify.

14 He lives 40 miles from here or 36 miles from here in the
15 Union Grove community in Upshur County. One of our jurors,
16 Mrs. Maiville, lives in Naple, Texas, which is 60 miles away
17 and an hour's drive each day both ways. If Mrs. Maiville can
18 come and go every day 60 miles both ways, Mr. Morris can come
19 from 40 miles away and present himself for testimony.

20 I'm going to deny the Plaintiff's motion to quash the
21 trial subpoena of Mr. Morris, and I am going to instruct
22 counsel for both sides to communicate and cooperate with
23 regard to the scheduling of Mr. Morris' testimony so that it
24 minimizes whatever inconvenience he might suffer as a part of
25 this.

1 I don't want him called and told to be here and have to
2 sit through an entire day's trial before he's put on the
3 witness stand. There's no reason why he can't be here shortly
4 before he's going to go on, testify, be excused, and leave,
5 and minimize any impact or inconvenience on his personal life.
6 And I'm directing both sides to work together so that this
7 process impacts him to the minimal extent necessary.

8 But he is subject to the trial subpoena, I'm not going to
9 quash it, he's going to be required to be present and to
10 testify. And the Plaintiff's motion's denied.

11 Now, third item on the Court's to do list courtesy of the
12 parties during yesterday's portion of the trial, I want to
13 turn to the issue of PNC's version 4.20.1 and whether it does
14 or does not infringe any of the MRDC patents in this case and
15 whether it is or is not a potential non-infringing alternative
16 in this case as to those MRDC patents in light of the
17 allegations of infringement as to other USAA patents pending
18 in what counsel all understand has been referred to as PNC 3,
19 another case separately pending in this court.

20 This issue will arise before the jury through the
21 testimony of Doctor Bovik who has yet to be called and will be
22 presented in the Defendant's case in chief.

23 There is a dispute between the parties that apparently
24 has been addressed, at least at some level during the pretrial
25 process before Magistrate Judge Payne, as to whether the

1 allegations of infringement as to the different patents in the
2 different lawsuit PNC 3 make version 4.20.1 available or
3 unavailable as a non-infringing alternative in this case as to
4 the MRDC patents.

5 I'm not going to reopen pretrial or attempt to
6 circumscribe Doctor Bovik's report at this late date in the
7 middle of this trial. To the extent Doctor Bovik opines in
8 his report about the potential for infringement of the PNC 3
9 patents and to the extent he opines about whether they -- the
10 version 4.20.1 would or would not be available as a
11 non-infringing alternative and therefore should be considered
12 in this case, and to the extent he has applied his assumptions
13 as to availability concerning version 4.20.1 and made that a
14 part of his damages opinions, he's going to be permitted to
15 testify to what's in his report. I'm not going to
16 circumscribe his report. To the extent it needed to be
17 narrowed or circumscribed, it should have been done in the
18 pretrial process.

19 I expect there to be vigorous cross-examination from the
20 Plaintiff about the availability or non-availability of
21 version 4.20.1 as a possible non-infringing alternative. It
22 appears to me to be an issue that's in dispute between the
23 parties, and I expect it to be taken up and argued both ways
24 during Doctor Bovik's direct and cross-examination.

25 But I am going to stand on the existing reports of Doctor

1 Bovik in that regard, and we will let the jury decide whether
2 or not version 4.20.1 is or is not available as a
3 non-infringing alternative and should or should not be
4 considered with regard to the issue of damages when they make
5 their determinations of the facts in this case.

6 All right?

7 MR. LANTIER: Your Honor, just very briefly so that
8 there's not confusion. Greg Lantier on behalf of PNC.

9 Doctor Bovik does not offer an opinion in his report
10 regarding the PNC 3 patents because Doctor Conte had not put
11 forth any analysis in his report.

12 THE COURT: Well, let me say this, counsel. We have
13 what we have. We have Doctor Conte. He's on and he's off.
14 We've got Doctor Bovik. He will come in your case and he will
15 get off the stand in your case. And whatever he has said in
16 his reports, he can testify to. And whatever he testifies to,
17 Plaintiff's counsel can vigorously cross-examine him on those
18 issues.

19 But we're not going to expand the horizon or we're not
20 going to broaden, narrow, or alter the horizon of the
21 potential testimony that's available from any of the witnesses
22 as to this issue.

23 MR. LANTIER: I understand, Your Honor. But the
24 question that spurred the objection was that Ms. Glasser wants
25 to ask various witnesses, does any PNC witness dispute as part

1 of this case that PNC's new product infringes the other
2 patents, the other patents being the PNC 3 patents. And
3 that's the objection is that they're going to go and ask all
4 of our witnesses, have you disproven infringement of these
5 three patents. And that's what we object to, Your Honor. I
6 think that's beyond what Doctor Conte said in his report and
7 it's prejudicial.

8 THE COURT: All right. Ms. Glasser, I'll give you a
9 brief response, or Mr. Sheasby, anybody from Plaintiff's side
10 who wants to address this.

11 MS. GLASSER: Sure. I think it applies to a couple
12 of different witnesses. There's no -- as Judge Payne
13 articulated, it is absolutely relevant to whether something is
14 available as an alternative whether it just walks right into
15 infringement of some different patents held by either the
16 Plaintiff or a third party.

17 So I'm not sure what the objection would be to us asking
18 the PNC witnesses whether they know if this product was
19 actually available to them in the sense that it didn't walk
20 into infringement of yet additional patents, patents that were
21 specifically identified in fact by Doctor Conte in his report.

22 And Mr. Sheasby, I think, will be addressing Doctor
23 Bovik. And so to the extent that doesn't resolve the issue,
24 he can provide some additional detail as well and why it's
25 directly relevant to Doctor Bovik's report.

1 THE COURT: And Doctor Bovik is Defendant's
2 technical expert and his opinions carry forward into the
3 damages analysis of -- is it Vellturo, the damages expert
4 for --

5 MS. GLASSER: Yes, correct, just as both Doctor
6 Bovik and Doctor Conte's opinions carry forward into our
7 damages case as well.

8 THE COURT: Okay. Well, with regard to this issue,
9 prior to Doctor Bovik's testimony, to the extent Plaintiff
10 wants to inquire of any Defendant's witness as to whether or
11 not they do believe or they have asserted or they have any
12 understanding about whether version 4.20.1 does or does not
13 infringe other USAA patents, including those that are at issue
14 in the PNC 3 case, I'm going to instruct counsel to approach
15 the bench and ask for leave and give me the exact presentation
16 of any question and the wording of it before I either allow it
17 or disallow it. And I'll monitor this as a gatekeeper going
18 forward.

19 When we get to Doctor Bovik, I expect him to put forward
20 his opinions, and I expect Plaintiff to vigorously
21 cross-examine him. I really expect this is going to work
22 itself out in whatever fashion it does during Doctor Bovik.
23 It should not be a major part of other witnesses' examination.

24 I'm not telling you I won't permit a single question, but
25 I'm going to want to know what it is and how it's going to be

1 presented before it's asked.

2 MS. GLASSER: And then, Your Honor, just to clarify,
3 is your preference to come up at sidebar or to address it
4 before the jury comes in?

5 THE COURT: Well, I want to addressed outside the
6 jury's presence. If we are in a recess and they are out of
7 the courtroom, I don't have a problem with taking it up then.
8 If they are, then you need to approach the bench and we'll
9 discuss it here at the bench.

10 MS. GLASSER: Thank you, Your Honor.

11 THE COURT: All right.

12 MR. STONE: Your Honor, in that regard, based upon
13 the demonstratives previously disclosed for Mr. Kennedy, it
14 would appear that this issue might come up during the
15 Plaintiff's examination of Mr. Kennedy and perhaps we could
16 address that issue now since I know he will be back on the
17 stand as soon as we resume.

18 THE COURT: You've already presented your disputes
19 as to demonstratives of Mr. Kennedy. I've already given you
20 guidance on those. He is going to be bound by his report just
21 like Doctor Bovik is. We're not going to go back and reopen
22 that issue.

23 MR. STONE: I'm not -- it's not an argument about
24 the demonstrative, Your Honor. I just anticipate based on
25 them that there will be this question and answer, and I

1 thought we might address it --

2 THE COURT: I think I just told Plaintiff's counsel
3 not to raise it with any other witness besides Doctor Bovik
4 without getting leave in advance from me.

5 MR. STONE: Thank you, Your Honor.

6 THE COURT: If I didn't, I want to make that clear.

7 All right. Are you ready to proceed with your direct,
8 Mr. Bunt, on Mr. Kennedy?

9 MR. BUNT: Yes, Your Honor. There will be an issue,
10 one question with Mr. Kennedy about the non-infringing
11 alternatives. It is set forth in his report and is on one of
12 the slides that were pre-admitted.

13 THE COURT: Well, I want to hear the question and
14 consider it outside the jury's presence before you ask it.

15 MR. BUNT: Okay. Yes, Your Honor.

16 THE COURT: We need to read into the record the
17 exhibits used during yesterday's portion of the trial at this
18 point. Let's proceed to do that.

19 MR. BUNT: Yesterday, Your Honor, actually the day
20 before, we had one exhibit that was missed, DX 1149, that the
21 Plaintiff used.

22 And then yesterday, we had the following exhibits used:
23 PX 1; PX 2; PX 3; PX 4; PX 83; PX 108; PX 41, which we will
24 ask that the Court seal; PX 100; PX 101; PX 106; PX 107; PX
25 136, which we will ask that the Court seal; PX 154; PX 269,

1 which we will ask that the Court seal; PX 303; PX 308; PX 312;
2 PX 315; PX 317; PX 328, which we will ask that the Court seal;
3 PX 331 that we will ask to be sealed; PX 353; PX 361; PX 362;
4 PX 378; PX 383; PX 384, which we ask that it be sealed; PX
5 508, which we ask to be sealed; PX 913 we ask to be sealed; PX
6 1138; and PX 1139, which we ask to be sealed; PX 1154, which
7 we ask that be sealed; PX 1167, also sealed; PX 1173; PX 1409
8 that we ask for sealing; PX 1411 that we ask to be sealed; PX
9 1506 that we ask to be sealed; PX 1527 that we ask for
10 sealing; PX 1622 we ask for sealing; PX 1754, also sealed; PX
11 1925 and PX 1945, both of which that we ask to be sealed.

12 Those are all the exhibits that we used yesterday, Your
13 Honor.

14 THE COURT: Are there objections from the Defendant
15 as to that rendition offered by the Plaintiff?

16 MS. SMITH: Your Honor, PNC does not object to that
17 rendition, and we do not object to any exhibits being sealed
18 that were published when the courtroom was sealed. But per
19 Your Honor's order, we object to the after-the-fact attempt to
20 seal documents that were published in an open court when the
21 courtroom was not sealed.

22 THE COURT: Mr. Bunt, if they've been presented in
23 open court and publicly published, what basis would I have to
24 seal them after the fact?

25 MR. BUNT: Well, I believe some of them might have

1 been -- right. We don't mind that the pages that were shown
2 can be made public. It's just anything else that we would
3 object to. And then we did specifically seal the courtroom
4 for a portion of Mr. Kennedy's testimony yesterday.

5 THE COURT: Well, anything presented during the time
6 that the Court had formally sealed the courtroom is
7 automatically sealed.

8 MR. BUNT: Yes, Your Honor.

9 THE COURT: The discussion in the transcript as
10 regards exhibits or demonstratives or other materials that was
11 presented to the jury without the courtroom being sealed,
12 while it was in an open state, if you have -- if you've not
13 raised any objection to those, the transcript where you talked
14 about them is going to be open as are the use of those
15 documents when the courtroom was opened.

16 I'm not sure exactly how you want me to seal the pages of
17 a document that weren't shown to the jury and aren't discussed
18 in the transcript. I mean, that's what it sounds like you're
19 asking me to do. You're okay with what you talked about when
20 it was open court, but if document X had a hundred pages in it
21 and you went through five of them, somehow you want me to make
22 sure nobody sees the other 95 pages.

23 MR. BUNT: Yes, Your Honor. It's my understanding
24 Your Honor has a standing order on the way that exhibits are
25 supposed to be sent into the Clerk's Office within a week

1 after the trial concludes and that details what happens with
2 whether it's sealed or not. We just wanted to flag in advance
3 in case there was any necessity for the record, these are the
4 ones that we thought should be sealed.

5 THE COURT: All right. Well, that's clearly
6 something that we can deal with post-trial as the exhibits are
7 turned into the Clerk's Office.

8 MR. BUNT: Thank you, Your Honor.

9 THE COURT: Ms. Smith, does Defendant have a
10 rendition of items from the list of pre-admitted exhibits used
11 during yesterday's portion of the trial?

12 MS. SMITH: We do, Your Honor.

13 THE COURT: Please offer that at this time.

14 MS. SMITH: Your Honor, we offer DX 29, DX 30, DX
15 32, DX 226, DX 1110, DX 1124, PX 1, PX 3, PX 4, PX 150, PX
16 317, PX 913, and PX 1126, Your Honor.

17 THE COURT: All right. Thank you.

18 MR. BUNT: I apologize, Your Honor. We have an
19 objection. Those were not on the list that we went through
20 when we were exchanging a list this morning to make sure that
21 we were on the same page as to which ones were admitted and
22 which ones were not.

23 THE COURT: Are you telling me you-all didn't meet
24 and confer before this morning on this issue?

25 MR. BUNT: We did, Your Honor, and we had exchanged

1 emails on all this and I thought we were in agreement. But
2 the only ones that I show as having come in were, I apologize,
3 DX 29, DX 30, DX 32, DX 1124, and PX 150. I apologize if I've
4 missed emails since then, Your Honor, but that was my
5 understanding.

6 THE COURT: All right. It's 8:45. I told the jury
7 we'd start at 8:30. You two are going to meet and confer
8 about this, and at or after the morning recess, we'll return
9 to this issue and see if there's any clarity that's been
10 achieved in the meantime. All right?

11 MR. BUNT: Thank you, Your Honor.

12 MS. SMITH: Thank you, Your Honor.

13 THE COURT: Counsel, so that you'll know, courtesy
14 of your various issues and motions and briefing, I spent most
15 of the night reviewing everything that you filed. I'm not
16 going to deduct any trial time for that. I am going to count
17 all the trial time since I've been on the bench this morning
18 and divide it equally between the parties because of the
19 necessity of going through these issues that you've raised.
20 So I'm going to charge the time since I came out this morning
21 to both Plaintiff and Defendant 50/50.

22 All right. Mr. Kennedy, if you are present, why don't
23 you return to the witness stand. I'll remind you remain under
24 oath.

25 Mr. Bunt, you may go to the podium and prepare to

1 continue with your direct examination.

2 Mr. Fitzpatrick, would you please bring in the jury?

3 (Whereupon, the jury entered the courtroom.)

4 THE COURT: Good morning, ladies and gentlemen.
5 Please have a seat.

6 Ladies and gentlemen of the jury, during the video
7 deposition of Mr. Goodstein that was played yesterday
8 afternoon, the parties both unexpectedly stood -- through
9 their counsel unexpectedly stood and asked the Court to stop
10 the video, which the Court did, because certain material that
11 previously had been determined as improper for you to hear was
12 inadvertently played.

13 This improper material involved a single question and
14 answer between counsel for the Plaintiff and Mr. Goodstein
15 regarding Wells Fargo Bank, the patents at issue in this case,
16 and third-party entity Mitek.

17 Now, in my own mind, I have doubts about how much of that
18 you may have heard or considered given the chaos and confusion
19 with both lawyers jumping up in the middle of it and asking me
20 to stop the video. But, nonetheless, I need to instruct you
21 that that single question and answer was not proper for you to
22 hear or consider to the extent you did hear it, and I'm
23 instructing you that with regard to Mr. Goodstein's deposition
24 of yesterday, you are to disregard completely any and all
25 testimony about Wells Fargo Bank as regards the patents in

1 this suit and any hardware or software that might have been
2 supplied to Wells Fargo Bank by Mitek.

3 Now, you must not permit this single question and answer
4 to play any part in your determination of the facts in this
5 case, and you are not to discuss this single question and
6 answer or this instruction I'm giving you now as a part of
7 your deliberations when you retire to consider your verdict.
8 And you are to treat that question and answer regarding Wells
9 Fargo, the patents at issue in this case, and third-party
10 entity Mitek as though it had never been played or presented
11 during the Goodstein deposition yesterday.

12 Can everybody on the jury do that, and if you can, would
13 you please raise your hands.

14 All eight members -- let the records reflect all eight
15 members of the jury immediately raised their hands to indicate
16 to the Court their ability and willingness to follow the
17 Court's instruction in this regard.

18 Thank you, ladies and gentlemen.

19 Now, before we proceed with the continuing direct
20 examination of Mr. Kennedy, Mr. Stone and Mr. Sheasby, I need
21 to see you at the bench here for just a second.

22 (The following was had outside the hearing of the
23 jury.)

24 THE COURT: To make sure that we don't run out of
25 testimony before we're going to break, I reviewed last night

1 or yesterday the disputes -- the overnight disputes regarding
2 Karen Larrimer. I meant to tell you this before I brought the
3 jury in, but with everything going on, I overlooked it.

4 So I want to tell you now that with regard to DDX 5.3,
5 which is this remote deposit timeline, the objection to this
6 is overruled. I think it's fine. It's background.

7 With regard to DX 0692, this email is a pre-admitted
8 exhibit. I'm going to overrule the objection to it.

9 And with regard to DX 149, I've looked, this was on the
10 submitted exhibit list filed Wednesday of last week as
11 directed by Judge Payne. I consider it proper. And so I'm
12 going to overrule the objection to that. Those are the
13 disputes with regard to Mrs. Larrimer.

14 MR. SHEASBY: There's a reference to Mitek
15 litigation in that one document that Judge Payne ordered
16 redacted.

17 THE COURT: I assume the redaction will be there
18 before it's used in this case.

19 MR. SHEASBY: Thank you, Your Honor.

20 THE COURT: All right.

21 MR. STONE: Your Honor, we would lodge an objection
22 to the instruction which we think heightened the prejudice. I
23 understand the Court considered that issue before you gave
24 your instruction, but we would want to object on the record.

25 THE COURT: I'm sure you do, Mr. Stone. Your

1 objection is noted.

2 MR. STONE: Thank you, Your Honor. I appreciate it.

3 THE COURT: All right. At this time, ladies and
4 gentlemen, we'll continue with the direct examination by the
5 Plaintiff of Mr. Kennedy, the Plaintiff's expert witness on
6 damages.

7 Mr. Bunt, you may proceed.

8 MR. BUNT: Thank you, Your Honor.

9 DAVID KENNEDY, PREVIOUSLY SWORN,

10 DIRECT EXAMINATION continued

11 BY MR. BUNT:

12 Q. Good morning, Mr. Kennedy. How are you?

13 A. Good morning. Fine.

14 Q. When we left off yesterday, I think we had been
15 discussing the *Georgia-Pacific* factors that damage experts use
16 in doing their damage calculations. Do you recall that?

17 A. Yes.

18 Q. And I believe that we had covered the first two of those
19 *Georgia-Pacific* factors that deal with prior USAA licenses and
20 any PNC licenses. Do you recall that?

21 A. I do.

22 Q. So let's turn to the next set of factors. What are the
23 next *Georgia-Pacific* factors that you considered?

24 A. So these are considered together, 3, 4, and 5, and they
25 deal with what I call special circumstances--the parties'

1 competitors, what kind of relationship is there between the
2 parties, and what's the intent of the infringer's use of the
3 technology; is it to be as a competitor or not; and other
4 special considerations like that.

5 Q. Did you find evidence that PNC intended to use its
6 infringing product to compete directly with USAA's remote
7 deposit capture options?

8 A. I did. Again, as part of the hypothetical negotiation, I
9 get to see internal documents from PNC. That's one of the
10 rules of the hypothetical negotiation. It's like playing
11 cards face up. You get to see everybody else's emails,
12 documents, internal financials, and that's what I was able to
13 look at.

14 Q. Let's take a look at your next slide. What does this
15 show?

16 A. So this is a PNC document, and it was -- it's called
17 their game plan. And the game plan, the very first page of
18 that remote deposit capture game plan is a screenshot of
19 USAA's app. So this shows you that in July 2010, they were
20 planning to use that app and compete with USAA.

21 Q. And is that something that would be known at the
22 hypothetical negotiation?

23 A. Yes.

24 MR. BUNT: And for the purposes of the record, the
25 bottom left-hand corner says PX 107.

1 Q. (BY MR. BUNT) Is that the Plaintiff's exhibit number
2 that the jury can request later on if they want to see it?

3 A. Yes, you can look at the document.

4 MR. BUNT: Let's go to the next slide.

5 Q. (BY MR. BUNT) What does this show as far as the
6 competition?

7 A. This is another page out of the same agreement. And if
8 you just look at the highlighted portion under competitive
9 landscape, USAA is the first company they talk about in the
10 competitive landscape, and they also say that it's first to
11 launch MRDC in September 2009.

12 Q. Did you see other evidence that PNC is directly targeting
13 USAA's customers?

14 A. I did. This is another PNC document, and it's about
15 competition in the military banking segment, which is, of
16 course, USAA's core customers. And if you look at the very
17 first words on this page, it says, USAA is also a key
18 competitor in the military financial education space.

19 Q. And that document can be found at PX 297, sir?

20 A. Yes.

21 Q. Did you review any other documents showing whether there
22 was a competitive relationship between USAA and PNC?

23 A. I did. And I found on PNC's website, this is an
24 advertisement to USAA's really customer base, military
25 banking, and it's telling the members you can make a deposit

1 by using your mobile app and taking a picture of your check
2 with your mobile phone. And as we've heard in this case,
3 that's what the USAA technology is all about.

4 Q. And that can be found at Plaintiff's Exhibit 299, sir?

5 A. Yes.

6 Q. Are there other documents indicating that PNC was focused
7 on the details of USAA's system?

8 A. Yes, there are.

9 MR. BUNT: Let's go to the next slide.

10 Q. (BY MR. BUNT) What does this show?

11 A. These are, again, internal correspondence at USAA from
12 the vice president of digital and interactive marketing to Mr.
13 Thomas Kunz, the senior VP and director of payments and
14 technology we heard from yesterday.

15 And you see the subject title there, "When will our
16 iPhone do this? USAA does it again!" And it's referencing or
17 quoting an article that says, If my bank had this, I
18 definitely would use it. Being able to deposit at the ATM is
19 one thing, but this screams convenient.

20 Q. And is that Plaintiff's Exhibit 150?

21 A. Yes.

22 Q. And then if we go to the next slide, what does this slide
23 show as far as the competitive factors?

24 A. Well, those were -- that was an email from Jerod Laughlin
25 to Thomas Kunz. This is his reply, and he says, "Agree. We

1 should pursue this."

2 Q. And who is Mr. Kunz?

3 A. He's the corporate representative for PNC and the senior
4 VP and director of payments and technology and was responsible
5 for rolling out or approving, I believe, PNC's mobile remote
6 deposit capture.

7 Q. How would these competition factors inform the
8 hypothetical negotiation?

9 A. Well, if you're licensing someone's technology to compete
10 with them, you're going to be charged a higher rate. So it
11 has an upward influence on the rate in the hypothetical
12 negotiation.

13 MR. BUNT: Let's go to the next slide, please, Mr.
14 Huynh.

15 Q. (BY MR. BUNT) What is *Georgia-Pacific* factor No. 6?

16 A. So this is -- it's referred to as convoyed sales. And if
17 you think about a patented printer being sold and then the ink
18 that gets sold along with it, that's convoyed sales. So you
19 look for any evidence of the patented product driving the sale
20 of other products or providing other benefits to because
21 they're using the patented technology.

22 Q. And *Georgia-Pacific* factor 8, what is that?

23 A. This asks us to look at the established profitability,
24 its commercial success, and its current popularity in the
25 patented technology.

1 Q. And *Georgia-Pacific* factor 11, what does that ask us to
2 do?

3 A. So this is where you look at the extent to which the
4 infringers made use of the invention, and we go to the
5 documents for that to see just how much PNC has used the
6 invention over time.

7 Q. What evidence did you find related to these factors?

8 A. So if you look at this -- the -- this document and the
9 document, it says, initiative name, mobile remote deposit. So
10 it's talking about this technology, what we're talking about
11 here. If you look first to the first -- well, this is key
12 business initiative, executive summary. The first one I've
13 highlighted is PNC saying that the customers are demanding the
14 technology.

15 Q. And then what about the second thing that you have
16 highlighted? What does that show as far as these factors?

17 A. Right. So to support evolving product continuum and
18 align with a new checking product. And, again, that's taking
19 the technology and trying to connect it to other products,
20 kind of like the convoyed sales concept that I mentioned.

21 Q. Is that going to tie into the ECCHO system that you're
22 going to talk about in a little while?

23 A. Yes.

24 Q. And then the third bullet point that you have listed,
25 what does that -- what impact does that have on your analysis?

1 A. So this shows how important it was. They believed that
2 an objective of using this technology is to obtain new
3 customers and retain existing customers, specifically the
4 general Y and X households in particular who they believe were
5 more likely to use remote deposit capture and some of the
6 other features that are profitable to PNC.

7 Q. And the past part you have highlighted, what is that?

8 A. This shows that they're trying to keep pace with
9 competitors and they list USAA as a competitor. So there's
10 definitely a competitive relationship that has to be
11 considered in the hypothetical negotiation.

12 Q. What's Georgia Pacific factor No. 7 that you had to
13 consider?

14 A. This is simply the duration of the patent and the term of
15 the license. And here the license is based on PNC's use of
16 USAA's patents over the damages period from second quarter of
17 2016 through the third quarter of 2021, or July 27th, 2021.

18 Q. What are the next factors that you needed to consider?

19 A. So this really gets to the heart of where I do my
20 analysis and calculate the damages. So I have to look at the
21 advantages of the patented property over old modes and
22 devices, and the nature of the patented invention, the
23 commercial embodiment of it, and the benefits to those who
24 have used the invention. And that's what I'll be doing in my
25 analysis.

1 Q. And what benefits did PNC obtain from using MRDC?

2 A. Well, I found four main benefits. If you'll go to the
3 next slide, I've listed them.

4 So they are reduced channel costs. We've heard how it
5 costs less to deposit with MRDC than it does at a teller or at
6 the ATM. It just costs them less money.

7 And then there's also reduced branch costs. We'll see
8 that MRDC and this shift from one channel to the other was
9 allowing PNC to save on branch costs, and actually they ended
10 up closing down a lot of branches.

11 And then the ECCHO system benefits is it's like an
12 advertising benefit, but I'll explain that more in detail as
13 we get to it.

14 And then the last point is the increased profitability of
15 MRDC accounts. PNC found that they were more profitable, the
16 accounts that used MRDC, than those that didn't.

17 Q. Let's turn to the first, reduced channel costs, if that's
18 okay with you, Mr. Kennedy.

19 How does MRDC achieve channel cost savings for PNC?

20 A. So, again, cards face up, we get to see their internal
21 documents. This is an internal PNC document where they
22 determined that the cost structure for a bank deposit is \$4 at
23 the branch and 13 cents for an MRDC mobile check deposit. And
24 it's \$1 at the ATM compared to that 13 cents for a mobile
25 check deposit.

1 So they're identifying the amount of money they're saving
2 by using MRDC versus these other channels. So these are the
3 channel costs we're going to look at.

4 Q. And is that document Plaintiff's Exhibit 1481?

5 A. Yes.

6 Q. Is the 2018 date of that document relevant to your
7 innovations?

8 A. It is. It's right around the time of the hypothetical
9 negotiation. So that's information that is very relevant,
10 what the parties knew at the time that they would have sat
11 down and negotiated.

12 Q. Has PNC talked publicly about these types of channel cost
13 savings?

14 A. Yes. I've got a slide that shows this.

15 This is PNC's chief executive officer, Mr. Bill Demchak,
16 and he says that using this deposit mobile saves them about
17 \$3.88 per transaction versus a deposit at the teller window.

18 And if you remember the \$4 and the 13 cents from the
19 previous page, that's about the exact same number if you
20 subtract that, \$3.87, \$3.88. And this was a public statement
21 that their CEO made at a financial services conference.

22 Q. Has PNC suggested that a different number should be used?

23 A. Yes.

24 Q. During this litigation, did they say that a number of \$1
25 per transaction should be used instead of the \$3.88?

1 A. Yes, they did.

2 Q. Why didn't you use that number?

3 A. Well, I did not use the \$1 number that was produced
4 during this litigation. I went back to what they were saying
5 at the time of the hypothetical negotiation to the public.
6 And as an auditor, we were often asked to review public
7 statements that our clients were going to make to shareholders
8 to make sure they were accurate because it's -- could
9 influence stockholders.

10 So statements like the CEO made in a public forum are
11 vetted and they're very carefully disclosed. So that's
12 something that carries a lot of weight and it's at the time of
13 the hypothetical negotiation.

14 Q. And that exhibit -- that public statement that Mr.
15 Demchak made can be found at Plaintiff's Exhibit 43. Correct?

16 A. Yes.

17 Q. Can you tell the jury how you calculated the channel cost
18 savings that PNC received?

19 A. Sure. So there's a lot behind this calculation, but I've
20 tried to summarize it in this chart that we'll build out to
21 the right.

22 First, I determined the total number of infringing MRDC
23 deposits over the damages -- only over the damages period, and
24 that was 105,800,000 infringing MRDC transactions.

25 Q. And then what would be the next step in your analysis?

1 MR. BUNT: Let's go to the next slide there. Thank
2 you, Mr. Huynh.

3 THE WITNESS: So you have to consider that if they
4 couldn't use MRDC, where would they deposit the checks. So
5 you look at PNC's historical split without MRDC, you factor
6 that out, what's the historical split going to ATMs versus
7 going to the branches.

8 And so that's what I've done. I have allocated a
9 percentage of the infringing 105,800,000 and assumed that
10 PNC's percentage of ATM deposits would come out of that number
11 and go to the ATM, and that would cost them 87 cents per
12 transaction. And that's from that document that the CEO
13 stated. That's the \$1 minus the 13 cents.

14 And the same for the additional branch costs, looking at
15 how many would typically go to a branch instead of an ATM if
16 they didn't have MRDC. And that branch cost is the \$3.87 that
17 came from that PNC document from 2018.

18 And so the total of -- of this calculation--it's more
19 complicated than this, but I've simplified it on this
20 slide--gets you to the total additional channel cost without
21 MRDC. And that's \$230,400,000 in additional channel cost,
22 assuming all of those checks would either go to an ATM or a
23 teller.

24 Q. (BY MR. BUNT) After channel cost savings, what is the
25 next category of benefits that you looked at in your analysis?

1 A. If you go to the next slide -- we're going to fill this
2 out. So we'll go to No. 2, and that's the reduced branch
3 costs.

4 So in addition to it just taking less time for a teller
5 and capturing that teller variable cost, then you're looking
6 at, over time, if you have enough of these transactions going
7 to -- hundreds of millions of these going to the MRDC, PNC had
8 found you can eventually start closing branches and reducing
9 tellers, and they identified how much they were going to be
10 saving.

11 Q. And did you review any evidence that PNC is using MRDC to
12 reduce its branch costs?

13 A. Yes. I've got another slide that is, again, a public
14 statement to the financial services conference, and this is
15 Mr. Jim Rohr, the former CEO.

16 So he's talking about migrating service transactions to
17 other channels, and we talked about what those channels are.
18 And he says that, by optimizing the number of branches, we
19 expect savings in the hundreds of millions of dollars over the
20 next five years.

21 Q. Does the data from PNC's internal files confirm what
22 PNC's CEO stated publicly?

23 A. It does. This is a chart I've prepared out of the data,
24 and in my analysis from PNC files is that if you graph out the
25 number of branches from 2016 to 2020, you see the significant

1 drop in the number of branches.

2 And you also are seeing that at the time that the number
3 of MRDC accounts are increasing, which, again, is shifting
4 deposits to another channel.

5 Q. How did you go about calculating the branch savings?

6 A. So if you go to the next slide, I determined that there
7 were 408 branches closed. And you have to look at the volume
8 of checks that would -- additional volume of checks that we
9 just talked about on the other slide would then go to the
10 branch for deposit versus the ATM.

11 And that's about -- if you add the next part of the
12 slide, you'll see that there would be approximately 26 percent
13 more branch check deposits over the 176 million branch
14 deposits, and that 26 percent branch check deposit increase
15 would cost \$148,400,000.

16 Q. What's the next category of benefits after branch savings
17 that you looked at?

18 A. It's called ecosystem benefits. You may have heard some
19 of the PNC witnesses talking about ecosystem, but it's a
20 common term when you're thinking about trying to keep people
21 connected to your bank in some way with different products and
22 hopefully more products.

23 Q. Does it provide an advertising value to make sure your
24 customers are always shopping at your store?

25 A. It does. The more you're on their app, the more you're

1 going to see, as I see on my mine, an offer for a low-rate
2 loan or check your mortgage rate. And it keeps you there
3 versus going to someone else's site and trying to find a low
4 refinance loan on a home. It's being advertised to you while
5 you're on their app. So if you can keep people on your app,
6 then you get a benefit from that.

7 Q. Can you give an example of an ecosystem benefit?

8 A. Sure. The next slide is a slide about a service called
9 Zelle. And I've used this. It's where you can transfer money
10 from your app, your mobile app. You can just go down and
11 select Zelle and transfer money. I can transfer it to my wife
12 to her account. And it's immediate, and it doesn't cost
13 anything.

14 Q. Who owns Zelle?

15 A. A company called Early Warning System, and PNC is a part
16 owner in Early Warning System.

17 Q. And does EWS charge USAA and other banks to use it if
18 they want to make it available to their customers?

19 A. They do. USAA pays Early Warning up to 60 cents for each
20 Zelle transfer, and that's 60 cents for out of network
21 transfers. So that's --

22 Q. I didn't mean to cut you off, sir.

23 A. That's okay. Sorry.

24 Q. Why would banks pay for Zelle if they're not going to
25 charge their customers for the Zelle service?

1 A. So it's -- like I said, you want to keep that customer on
2 your site where you can advertise to them or just keep them
3 from going to another bank. And it's important enough for
4 companies to pay up to 60 cents for customers that are
5 otherwise out of network, and that's what you're trying to do
6 is get customers into your network and keep them there.

7 Q. Why is Zelle comparable to MRDC?

8 A. Well, it's something that the customer doesn't pay for.
9 MRDC has the same purpose. You want people doing their remote
10 deposit capture on your app to put the money in your bank
11 versus somebody else's. If you don't have it or they don't
12 like the way yours works, they might deposit it in one of
13 their other checking accounts or they could even move banks
14 and go to another checking account.

15 So it's important enough to keep them in their ecosystem
16 and that's the same concept here with Zelle and what PNC and
17 Early Warning System are charging customers or charging other
18 banks to use.

19 Q. Do you have another example of ecosystem benefits?

20 A. I do. This is an agreement between USAA and PNC. It's
21 an ATM agreement. USAA pays PNC up to \$1.85 to let USAA
22 members use PNC's branches because, again, the members are
23 military families, they're often being deployed and moved
24 around, and USAA wants to make sure to keep them in their
25 ecosystem that they have access to their money. So they're

1 willing to pay PNC \$1.85 and not charge the customer anything
2 so the customer can get access to their money in more places.

3 Q. What amount did you calculate for the ecosystem benefits
4 that PNC gained from using mobile remote deposit capture?

5 A. So I used the Zelle royalty rate as what I believe is the
6 best ecosystem example or comparable, and multiplied that
7 times the infringing MRDC transactions over the damages
8 period, and you see the total there of \$105,800,000 that we
9 talked about. Those are just the ones just during the damages
10 period. And with that 60 cent-per-transaction Zelle rate, you
11 get \$63,500,000 for total ecosystem benefits.

12 Q. What's the last type of benefits that PNC has obtained
13 from using MRDC?

14 A. So the accounts that use MRDC are more profitable, and
15 I'll explain why on the next slide, but they're more
16 profitable than accounts that don't use MRDC.

17 So they're getting that benefit by having their clients
18 use MRDC or attracting the kind of people that use MRDC that
19 are more profitable, like Gen X/Gen Y folks that are just
20 getting started. And those kind of customers are more
21 profitable.

22 Q. And does PNC treat its MRDC as part of its checking
23 account product?

24 A. Yes, it does.

25 Q. How did you determine that MRDC customers are more

1 profitable for PNC than non-MRDC customers?

2 A. So I looked at PNC's internal financial data. And this
3 is 2020, PNC's retail checking accounts, and these are dollars
4 per month. And you can see that the net profit on accounts
5 with one or more MRDC deposits is \$6.60 per month, and
6 accounts with zero MRDCs are \$2.41.

7 So that shows that MRDC accounts are 275 percent more
8 profitable.

9 Q. And is this a summary of materials that you found in
10 Plaintiff's Exhibit No. 96?

11 A. Yes. There's a lot of detailed financial information in
12 PX 0096, but these numbers were taken out of that detail and
13 summarized by these two categories.

14 Q. Why are these mobile remote deposit capture accounts more
15 profitable than non-MRDC accounts for PNC?

16 A. You can see one line item here, No. 3 -- well, most of
17 the line items are more profitable. But one of particular
18 note that I'll talk about is personal service fees that they
19 charge these types of accounts, \$1.77, and it's for something
20 called or it includes something called express funds.

21 I've got a slide on that that will show -- pull the next
22 slide up.

23 Q. What evidence did you have about these express fees?

24 A. So this is an express funds research summary from PNC.
25 And you'll see I've drawn out a piece of that, and it says,

1 not surprisingly, consumers more likely to pay for the express
2 funds option suggest they would use it when they are short on
3 money and to pay bills, such as rent, mortgages, utilities,
4 and other things. And PNC charges for them to have early
5 access to that money.

6 So if you would de -- if you're depositing a check
7 quickly to try to pay your mortgage, you want access to it
8 fast, and you have to pay extra for that.

9 Q. And are those charges listed on the right-hand side of
10 your slide?

11 A. Yes.

12 Q. And is that \$2 for up to a \$100 deposit, and then 2
13 percent for greater than a \$100 deposit?

14 A. That's correct.

15 Q. And what did that work out to in an equivalent annual
16 interest fee?

17 A. And remember it's almost like just getting your money
18 advanced a day or two early. So if you take that on an annual
19 basis, it's an annual interest fee of 639 percent. So it's
20 very profitable for them.

21 Q. And this is -- can be found at Plaintiff's Exhibit 219?

22 A. Yes.

23 Q. Were you able to calculate the increased profit that PNC
24 gained as a result of MRDC accounts being more profitable than
25 non-MRDC accounts?

1 A. Yes. And I've got a chart here that summarizes a number
2 of the exhibits I've put together to calculate that.

3 So you see the monthly number of MRDC accounts using the
4 infringing apps, and it varies over time. We've seen before
5 that they had up to -- last night up to 900,000 in -- or over
6 900,000 in 2021 in a single month using it. And then the
7 profit above non-MRDC accounts, and that total is
8 \$162,400,000.

9 Q. So does that conclude the four benefits?

10 A. Yes, it does.

11 Q. And I should say, are -- is that increased profitability,
12 is this all of the profits from MRDC customers?

13 A. No. It's only the difference. It's not including all of
14 them. It's only the difference between with MRDC and without.

15 Q. And what are the next two Georgia factors that you
16 considered?

17 A. So this asks me to consider is there any -- do I know of
18 in my experience or could I find any typical sharing type
19 arrangement or consideration of how the benefits should be
20 negotiated over in the hypothetical negotiation, which we're
21 about to get to, and 14 allows me to consider the opinion of
22 other qualified experts if I need to.

23 Q. What's the next step in your analysis?

24 A. So 13 is important to just -- it's called apportionment
25 in summary, but we have to apportion out benefits that are not

1 related to the patents-in-suit, and just take out of that
2 \$604 million benefit that they realized using the technology
3 and take out of that things that are not related to the
4 patents-in-suit.

5 Q. Did PNC identify any alternatives that it would have used
6 if it hadn't used USAA's patented technology?

7 A. So this is testimony that you heard yesterday from Mr.
8 Kunz, the senior VP and director of payments and technology,
9 and he was asked, "Have you personally investigated whether
10 any viable alternative exists to the USAA patents that do not
11 infringe other USAA patents?" And he said that he had not.

12 So that means there's not a -- they couldn't identify a
13 non-infringing way to do this. And, therefore, we look at the
14 benefits they got, and then we will --

15 MR. STONE: I would object. This goes beyond the
16 scope of the ruling the Court made yesterday. He's not an
17 expert on infringement at all, as we know, and he can't
18 express an opinion on these issues.

19 THE COURT: Are you objecting that you believe the
20 witness is testifying beyond the scope of his report?

21 MR. STONE: Both beyond the scope and it's beyond
22 the scope of what Your Honor permitted under the order
23 yesterday with respect to issues like this, given the
24 testimony of Doctor Conte as well.

25 THE COURT: Mr. Bunt, do you have a response?

1 MR. BUNT: It's at paragraph 177 of Mr. Kennedy's
2 report, and he specifically called out this testimony from Mr.
3 Kunz in his report.

4 MR. STONE: The fundamental issue here, Your Honor,
5 is the issue with respect to the ruling on Doctor Conte and
6 the ruling that we discussed earlier this morning.

7 THE COURT: Approach the bench, counsel.

8 (The following was had outside the hearing of the
9 jury.)

10 THE COURT: Why don't you refresh my recollection
11 about the matter you're referring to concerning Doctor Conte.

12 MR. STONE: Yes. He cannot testify regarding the
13 infringement of other USAA patents because he didn't have an
14 opinion on that, and this witness can't testify to
15 infringement of other USAA patents.

16 The issue in this case is the infringement of these four
17 patents at issue, and there's no issue in which this witness
18 can testify. And this morning when Your Honor discussed this
19 issue, you indicated that the only witness we would hear
20 further about this is Doctor Bovik.

21 MR. SHEASBY: This is expressly in his report which
22 he says that the -- how 4.20.1 --

23 THE COURT: Wait a minute. This is paragraph what?

24 MR. BUNT: 182.

25 THE COURT: Okay.

1 MR. SHEASBY: 181 and 182. And it goes down,
2 infringes other USAA patents, and he expressly refers to the
3 three patents in USAA 1 and USAA 2 as well as patents in this
4 case.

5 THE COURT: Let me read these two paragraphs.

6 MR. BUNT: May I add, Your Honor, Mr. Kennedy is not
7 going to reference the other lawsuit, but he has said in his
8 report and in his deposition and he's prepared to say that
9 it's his understanding from Doctor Conte that there were three
10 other patents from the 2006 family that infringe or are
11 covered -- I'm sorry, that the product 4.20.1 product is
12 covered by those three other patents.

13 MR. SHEASBY: And to be clear, this was not stricken
14 from Mr. Kennedy's report, and Judge Payne expressly ruled in
15 a motion in limine that we are allowed to present this
16 testimony.

17 THE COURT: Well --

18 MR. STONE: Your Honor, may I just -- sorry.

19 THE COURT: Go ahead, Mr. Stone.

20 MR. STONE: Thank you, Your Honor.

21 You said this morning that before anybody asked questions
22 about any other patents, that they should approach the bench.
23 And I raised the issue with the Court that it was going to
24 come up with Mr. Kennedy. You indicated that you knew that
25 Mr. Bunt was instructed to raise it and instead he asked the

1 question.

2 This is a question that goes directly -- it is contrary
3 to the scope of what Doctor Conte was allowed to testify to.

4 MR. BUNT: And as Your Honor can see, I have tabbed
5 two questions down where I was going to approach the bench
6 when we got into the exact question I'm going to ask Mr.
7 Kennedy about this. We have a slide coming up.

8 THE COURT: Well, whether it's too soon or too late
9 to get up here, we're up here now. I'm looking at the report.
10 I am not going to attempt to circumscribe an expert's report
11 in the middle of a jury trial when it's been through review at
12 pretrial under *Daubert* and any motion to strike practice.

13 So to the extent this witness testifies as to what's in
14 paragraphs 181 and 182 of his report, he's fine. You are not
15 to mention other litigation. You may mention -- to the extent
16 it's in this report, you may mention other patents.

17 MR. BUNT: Yes, Your Honor. I understand.

18 THE COURT: That's the ruling.

19 MR. STONE: Thank you, Your Honor.

20 (The following was had in the presence and hearing
21 of the jury.)

22 THE COURT: Let's proceed.

23 Q. (BY MR. BUNT) So I think the question to you, Mr.
24 Kennedy, was, did PNC identify any alternatives that it would
25 have used if it hadn't used USAA's patented technology?

1 A. No.

2 Q. And did you see testimony from Mr. Kunz about that?

3 A. Yes. He said he had not identified any alternative that
4 did not use the other USAA patents.

5 Q. What alternatives did you determine that PNC had instead
6 of the patents-in-suit?

7 A. Well, if -- they could have used the specialized check
8 scanners that we heard earlier about in the trial. Those were
9 expensive devices and something that it could have been used
10 to scan the checks in. Those are generally used by
11 businesses, though.

12 Q. Would that have worked as an alternative?

13 A. Well, we have some information on that, and this is a
14 comparison that USAA did when they launched the MRDC. And
15 before that, their users were using a scanner or home computer
16 device or some other type of device that they could submit it
17 from home. But once they launched the mobile remote capture,
18 97 percent of the deposits were done at Deposit@Mobile versus
19 only 2.7 percent were left at Deposit@Home.

20 So that gives you a really good indication of how the
21 customers value that technology. Only 2.7 percent of them
22 kept using the Deposit@Home; 97.3 shifted over to the mobile
23 deposit capture.

24 Q. Could PNC have used a different version of the MRDC that
25 didn't use any of USAA's technology?

1 A. It's my understanding they could not, that they would
2 still be -- based on Doctor Conte's testimony, they'd still be
3 infringing. The 4.20.1 still infringes and is not an
4 alternative according to Doctor Conte. And, again, I can
5 rely -- I rely on other experts when it's outside my field of
6 expertise.

7 Q. And is that because of these three patents, these three
8 patents from the 2006 patent family that we have listed up
9 here on this slide?

10 A. Yes.

11 Q. And these are not asserted in this lawsuit, but is it
12 your understanding from Doctor Conte that they would still
13 cover the 4.20.1 design?

14 A. It is. That's what I heard him testify to yesterday.

15 THE COURT: Let's move on, counsel.

16 MR. BUNT: Thank you, Your Honor.

17 Q. (BY MR. BUNT) At the time of the hypothetical
18 negotiation, what would the parties know about the benefits
19 that PNC made from MRDC during the time that it was infringing
20 USAA's patents?

21 A. So these are the total of the four areas, \$604,600,000,
22 just during the damages period. That would be the number they
23 would be discussing at the hypothetical negotiation.

24 Q. Under factor 13, what percentage of those benefits comes
25 from PNC's use of USAA's patents?

1 A. So I've looked at it two different ways. You see on the
2 right, that's what we just talked about, the impact of adding
3 the MRDC technology, 97.3 percent of people stopped using the
4 next best alternative and started using Deposit@Mobile.

5 Q. What's the second metric you have on the left that says
6 41 percent?

7 A. So the impact of adding USAA's auto-capture technology,
8 just the auto-capture part, PNC -- USAA saw a 41 percent
9 improvement in error rates. So their error rates went down.
10 It was -- and so that's another way of looking at it. Just
11 implementing auto-capture, they have 41 -- there's a 41
12 percent improvement in problems that they previously had.

13 So if you look at those two metrics as indicating the
14 portion of -- you could look at those two metrics as
15 indicating the portion of the 604 million that should be
16 attributed to just the technology, and I chose the midpoint of
17 69 percent to give both of those equal weight.

18 Q. Now, you're using USAA's numbers for the 41 percent. Did
19 you also look at PNC's experience when it added auto-capture?

20 A. Yes. And the same calculation for PNC would have shown
21 an even greater improvement. So the number would have been
22 higher. So I'm taking the lowest number, 41.

23 Q. I apologize, Mr. Kennedy.

24 A. Sure.

25 Q. How did you use that information, the 69 percent, in your

1 analysis?

2 A. So if you go to the next slide, we start with the
3 benefits that we calculated in each of the four areas total,
4 \$604,600,000. And you apportion that down by 69 percent or
5 down to 69 percent, and that's midpoint of the -- the average
6 of midpoint of those two benefits just related to the
7 technology. And you get 417,200,000 for the
8 apportioned -- that's isolated to the contribution of USAA's
9 patents.

10 Q. And then what's the next step with your numbers?

11 A. So then you apportion down to only include the damages
12 period. There was infringement that the damages period is a
13 shorter period of time that we're basing it on when in
14 December 15th, 2016, when they started marking their products
15 with the patent numbers so everybody knew that those products
16 were patented, and October 25th for the 2006 patent family.

17 Q. Given that, what's the total amount of benefits that PNC
18 gained from its use of the patents-in-suit?

19 A. It's \$329,500,000 for that time period.

20 Q. And what's the next step in your analysis?

21 A. So now you have all the information for the hypothetical
22 negotiation, and the parties would sit down and remembering
23 you've got three requirements: you can't walk away, you have
24 to reach an agreement, and it's cards face up. You get to see
25 all the information, all the testimony, all these reports and

1 studies and comments from PNC's executives about how important
2 this is, how it saves hundreds of millions of dollars, and
3 then you negotiate over that.

4 So we've calculated the amount, and you have to come to
5 an agreement of how that will be shared.

6 MR. BUNT: Let's go to the next slide, Mr. Huynh.

7 Q. (BY MR. BUNT) How much would PNC have agreed to pay USAA
8 in this negotiation?

9 A. So PNC would like to get as much of that savings or keep
10 as much of it as they could, but they have to pay -- have to
11 enter into a license agreement.

12 So in my experience negotiating license agreements, I
13 have used what's called the return on equity to give a
14 licensee or an infringer some share that allows them to tell
15 their stockholders, hey, at least we got 8.85 percent out of
16 the benefits that USAA would say are all ours.

17 But USAA, I think, would allow them to at least get back
18 that return on equity, which is what they normally get in the
19 marketplace for their shareholders, and that's 29.1 million.
20 And so the net amount that would be paid is \$300,400,000.

21 Q. Have you determined how that \$300.4 million would be
22 allocated between the 2006 patent family and the '571
23 auto-capture patent?

24 A. I have. You see the '571 Patent on the left and the 2006
25 patent family--the '432, the '605, and the '681--on the right.

1 And what I determined was that the -- that 52 percent of the
2 benefits related to the '571, was even greater than that, for
3 PNC. And so I allocated it based on that 52 percent and the
4 48 percent over the damages period for the different patents.

5 They are different for the different families. The
6 infringing deposits are split between the two different
7 families because there is a longer damages period for the
8 '571, and you come down to an allocated rate per infringing
9 deposit of \$1.89 for the '571 Patent and \$1.78 for the 2006
10 patent families.

11 Q. And then can you explain the timeline at the bottom?

12 A. Sure. So you can't just add the \$1.89 to the \$1.78
13 because there are different -- like I said, there's a
14 different period of time. So for a period of time, they were
15 only paying -- they would only need to be paying \$1.89 per
16 infringing deposit until the other patents issued, and then it
17 would be plus the \$1.78. And so an overall rate per
18 infringing deposit is an average of \$3.06.

19 Q. So the \$1.89 and \$1.78, they add up to \$3.67 per
20 infringing deposit. Is that right?

21 A. Yes.

22 Q. But you have to take into account the different times and
23 periods there is infringement, and that gives you the overall
24 rate at the bottom, \$3.06.

25 A. That's correct.

1 MR. BUNT: So let's go to the last slide.

2 Q. (BY MR. BUNT) Mr. Kennedy, can you remind the jury one
3 last time of your conclusion for a reasonable royalty for
4 PNC's infringement of USAA's patents?

5 A. Sure. For the 2006 family, the '432, the '605, and the
6 '481 Patents, the damages are and reasonable royalty
7 \$115,500,000.

8 For the 2009 family, which is the '571 Patent in this
9 case, it's \$184,800,000, for the total of \$300,400,000 for all
10 the patents-in-suit.

11 Q. Thank you, sir.

12 MR. BUNT: I'll pass the witness.

13 THE COURT: All right. Ladies and gentlemen, before
14 we proceed with the Defendant's cross-examination of Mr.
15 Kennedy, we're going to take a short recess. I'll try to keep
16 this to about 10 or 12 minutes.

17 If you will, just close your notebooks and leave them
18 there in your chairs, follow all the instructions I've given
19 you, including not to discuss the case among each other, and
20 we'll all be back shortly, and at that point the Defendants
21 will cross-examine Mr. Kennedy.

22 The jury's excused for recess.

23 (Whereupon, the jury left the courtroom.)

24 THE COURT: Court stands in recess.

25 (Brief recess.)

1 THE COURT: Be seated, please.

2 Mr. Stone, are you prepared to go forward with
3 cross-examination?

4 MR. STONE: I am, Your Honor.

5 THE COURT: Let's bring in the jury, please.

6 (Whereupon, the jury entered the courtroom.)

7 THE COURT: Please be seated, ladies and gentlemen.
8 We'll proceed with the Defendant's cross-examination of Mr.
9 Kennedy.

10 Mr. Stone, you may proceed.

11 MR. STONE: Thank you, Your Honor.

12 CROSS EXAMINATION

13 BY MR. STONE:

14 Q. Good morning, Mr. Kennedy.

15 A. Good morning.

16 Q. You have a binder in front of you that we sat up there at
17 the break. Correct?

18 A. Yes.

19 Q. In this case, what you have done is computed damages up
20 to a particular date. Correct?

21 A. Correct.

22 Q. And that date is in July of 2021. Correct?

23 A. Yes.

24 Q. And you stopped any computation of damages on that date
25 because that's when USAA -- that's when PNC had completed its

1 roll-out of 4.20.1. Correct?

2 A. That's part of the reason.

3 Q. You stopped the computations when the roll-out of 4.20.1
4 was complete, did you not?

5 A. Yes. I think that's -- yes, that coincides with another
6 issue, but that's the reason.

7 Q. And you have not made any computations in this case for
8 any claim for reasonable royalty with respect to the use by
9 PNC's customers of the upgraded or updated app 4.20.1, have
10 you?

11 A. That's correct.

12 Q. And you started your computations not when PNC first
13 rolled out its app, have you? That's not the start date for
14 your computation?

15 A. No.

16 Q. Because PNC rolled out its app in 2011. Correct?

17 A. Correct.

18 Q. And none of the patents in this case had issued then, had
19 they?

20 A. That's correct.

21 Q. And you have to limit your computation of value to the
22 patents in this case, the four patents. Correct?

23 A. Yes.

24 Q. And we know, don't we, that the two features taken out
25 from the app 4.20.1 are ones that we've talked about and

1 you've heard testimony about in this trial? Right?

2 MR. STONE: Can we bring up maybe DDX 1.65?

3 Q. (BY MR. STONE) It will come up on your screen. We've
4 talked about these two features throughout the course of this
5 trial, haven't we, showing the customers the photos of the
6 check before sending it to the bank and auto-capture?
7 Correct?

8 A. Yes.

9 Q. And those are the two features that distinguish 4.20.1
10 from what went on before that. Right?

11 A. That's my understanding. I haven't studied the technical
12 features, but I've listened to the testimony. I've heard
13 that.

14 Q. And once these two features were removed, that's when you
15 stop any computation of damages.

16 A. Yes, I believe that's correct.

17 Q. And you did not today during the course of your testimony
18 tell us what you thought was the value of showing the photos
19 to the customer before sending it to the bank, did you?

20 A. Nothing that specific.

21 Q. So that one feature you don't have any valuation for to
22 present to the ladies and gentlemen of the jury.

23 A. No. I apportioned -- yeah. I'm not sure. Are you
24 talking about auto-capture itself.

25 Q. No, I'm not. I'm talking about the first feature that's

1 on the screen in front of you showing the photos of the check
2 before sending it to the bank. You have not given the ladies
3 and gentlemen of the jury any valuation of that feature, have
4 you?

5 A. That's correct. It would be part of the overall value,
6 but not anything specific for that.

7 Q. And when you talked about the benefits earlier today, you
8 talked about the benefits of something you refer to as MRDC.
9 Correct?

10 A. Correct.

11 Q. And MRDC is mobile remote deposit capture. Correct?

12 A. Yes.

13 Q. And today, almost every bank in the United States offers
14 some version of the MRDC.

15 A. Most big banks I believe do.

16 Q. And lots of small banks do?

17 A. Sure.

18 Q. I mean, you talked about what you mentioned yesterday,
19 Dollar and SunCoast, for example. Right?

20 A. Right.

21 Q. They offer that. Those are smaller banks. Right?

22 A. Yes.

23 Q. And so we have to distinguish, don't we, between the
24 benefits of MRDC and determine what are the benefits that come
25 from whatever USAA claims is covered by the four patents in

1 this case?

2 A. That's correct.

3 Q. Because there's lots of ways to do MRDC without using the
4 four patents at issue in this case. Correct?

5 A. Well, I don't know that, but that's why I'm apportioning.

6 Q. Okay. But you told us that the only option for PNC was
7 either -- well, the only option you told us PNC had was either
8 take a license for MRDC or go to scanners. Correct?

9 A. Yes.

10 Q. But there's lots of other ways to do MRDC other than
11 go -- and you don't have to go to scanners. Right?

12 A. Well, my point was PNC had not identified any other ways
13 that were non-infringing.

14 Q. But one of the things they identified was 4.20.1.
15 Correct?

16 A. Right. And I understand that infringes other patents.

17 Q. It takes out the features at issue in this case, doesn't
18 it?

19 A. In this case.

20 Q. Yes. In this case.

21 A. I -- yes, but I still understand, I believe, from Mr.
22 Conte that --

23 Q. You understand this is about the patents in this case.
24 Correct?

25 A. Yes. Correct.

1 Q. And for the patents in this case, the two features taken
2 out of 4.20.1 resolve any issue. Correct?

3 A. I don't believe that was Doctor Conte's opinion.

4 Q. Doctor Conte did not come in and express an opinion with
5 respect to any infringement by the feature we have up on the
6 screen still showing the customer the photos of the checks
7 before sending to the bank, did he?

8 A. I don't recall.

9 Q. And there is -- given that there's lots of other ways to
10 do MRDC, you're not telling the jury that there aren't other
11 ways PNC could have done it without using the claimed
12 inventions of the four patents in this case, are you?

13 A. Well, what I observed was that --

14 Q. Can you answer my question yes or no? What are you
15 telling -- you're not telling the jury in this case that there
16 is no way that PNC Bank could offer MRDC other than running
17 into claims that the claimed inventions in this case are
18 somehow infringed.

19 THE COURT: Counsel, don't instruct the witness as
20 to how to answer the question. If the witness gives an answer
21 that you believe is non-responsive to your question, you can
22 raise that with me.

23 MR. STONE: Thank you, Your Honor.

24 THE COURT: All right. Restate your last question
25 or move on.

1 MR. STONE: Sure.

2 Q. (BY MR. STONE) Mr. Kennedy, you're not telling the
3 ladies and gentlemen of the jury that PNC couldn't use other
4 MRDC features and functionality, as many other banks do,
5 without infringing the claimed inventions in the four patents
6 at issue in this case, are you?

7 A. I'm not talking about infringement at all.

8 Q. So you're not saying that there aren't other ways that
9 PNC Bank could offer mobile remote deposit without using the
10 two features that they took out in 4.20.1, are you?

11 A. Well, it's my understanding the alternative that they
12 turned to to try to avoid infringing the USAA patents still
13 infringes, so it's not a non-infringing alternative.

14 Q. And you're not telling the jury that the MRDC that PNC
15 Bank is using today isn't working without these two features,
16 are you?

17 A. Yeah. I just -- I'm not sure I understand your question.

18 Q. Let me ask it this way. You would agree with me that
19 there's lots of ways to offer MRDC.

20 A. Sure.

21 Q. And you would agree with me that there's lots of things
22 in MRDC that are not claimed even by USAA to be covered by the
23 four patents in this case. Correct?

24 A. Yes.

25 Q. And USAA doesn't claim to have invented MRDC.

1 A. Right. Very significant portion of it, but there's --

2 Q. Well, they didn't invent the ability to read the
3 handwriting on the check using OCR, did they?

4 A. Right.

5 Q. And they didn't invent the ability to read the MICR line,
6 did they?

7 A. Correct.

8 Q. And they didn't invent TWAIN software, did they?

9 A. Not that I'm aware of.

10 Q. And they didn't invent -- once you have a good check
11 image that you can put into the process, everything that
12 happens in the process after that, there's no claim that they
13 invented that process, that downstream process for taking a
14 good image and using it to deposit, there's no claim they
15 invented that, either, is there?

16 A. I don't know if any of their claims address the
17 downstream process.

18 Q. So you know we're only supposed to look at that portion
19 of the MRDC that USAA claims is covered by the four patents in
20 this case. Correct?

21 A. Correct.

22 Q. And the four patents in this case are claimed to cover
23 showing the customer the photos of the check before sending it
24 to the bank. Correct?

25 A. Yes.

1 Q. And you haven't given the ladies and gentlemen of the
2 jury any valuation of that feature, have you?

3 A. Not that specific, no.

4 Q. And then the other feature at issue is auto-capture.
5 Correct?

6 A. Right.

7 Q. And you would agree that PNC's customers today don't have
8 the ability to use auto-capture. Correct?

9 A. I believe I've heard testimony that they have turned it
10 off. They still have the software, but it's not functioning.

11 Q. So from the perspective of a customer when they log onto
12 the PNC website -- you've used the PNC app. Am I right?

13 A. I looked at it. I haven't used it. I don't have an
14 account there to use it. But I have looked at it and seen a
15 check get captured.

16 Q. And you know that when the PNC customer goes to the
17 mobile app and goes to the remote deposit feature on that
18 mobile app, you know that they don't have an option to use
19 auto-capture ever since 4.20.1 was rolled out. Correct?

20 A. That's my understanding.

21 Q. And there's no way that a customer can punch a series of
22 buttons or do anything else to get that auto-capture
23 functionality to appear on the screen of their smartphone, is
24 there?

25 A. I don't know for certain myself, but that's my

1 understanding from what I've heard in court.

2 Q. Okay. And so from the perspective of a PNC customer,
3 whatever benefit there was or was not from auto-capture,
4 they're not realizing that benefit today, are they?

5 A. Yes, that's correct. That's my understanding, anyway,
6 with the new 4.20.1.

7 Q. And for whatever benefit there was to somebody at PNC
8 from -- to a PNC customer from showing the customer the photos
9 of the check before sending it to the bank, the customer is
10 not realizing whatever benefits came from that feature,
11 either, today, are they? Because that feature's gone?

12 A. That's what I've heard. That's my understanding.

13 Q. Okay. And so whatever benefit PNC Bank got from being
14 able to offer the feature of showing the checks to the
15 customer before they -- showing the images to the customer
16 before they deposited the check, PNC Bank is not getting any
17 of that benefit today, are they?

18 A. I'm sorry. I thought --

19 Q. Too long a question. Let me ask it again.

20 THE COURT: Let me stop both of you. It's very
21 problematic when you both talk at the same time. Make sure
22 you don't talk at the same time.

23 MR. STONE: Thank you, Your Honor.

24 THE COURT: Restate your question, counsel.

25 Q. (BY MR. STONE) PNC Bank, according to the testimony you

1 gave us earlier, realizes some benefits from being able to
2 offer MRDC functionality to its customers. Correct?

3 A. Yes.

4 Q. And the benefits you talked about that you talked about
5 earlier today, were the benefits from being able to offer a
6 form of remote deposit capture. Correct?

7 A. Yes.

8 Q. Any form of remote deposit capture would have, in your
9 opinion, resulted in some benefits to PNC?

10 A. Yes.

11 Q. Whatever portion of those benefits to PNC that came from
12 the customer being shown the image before the check was
13 submitted, that benefit is not available to PNC today, is it?

14 A. I believe that's correct.

15 Q. And whatever benefit came to PNC from the customers being
16 able to use auto-capture is also not available to PNC today,
17 is it?

18 A. I believe they have disabled temporarily auto-capture.
19 That's my understanding.

20 Q. Okay. And let me not ask you a technical question. Let
21 me ask you a question about computations that I think you have
22 talked to the jury about.

23 You computed the benefits of PNC Bank, in your opinion,
24 that resulted from them being able to offer remote deposit to
25 their customers. Correct.

1 A. Yes.

2 Q. And my question for you is, today with the customers not
3 able to access auto-capture, whatever benefits customers
4 accessing auto-capture brought to PNC Bank, PNC Bank is not
5 getting those benefits anymore, is it?

6 A. Yes. To the extent they're not -- yes. To the extent
7 they're not using that technology that created the value,
8 they're not getting that value.

9 Q. Okay. So if we want to know the benefits to PNC Bank of
10 those two features, we can look at how PNC Bank's performance
11 was before 4.20.1 and compare it to after 4.20.1. Correct?

12 A. Yes.

13 Q. And you acknowledge that that's an appropriate way to
14 value these two features, don't you?

15 A. It's one way, yes. It's one of the data points I looked
16 at.

17 Q. And when you talked about the benefits to PNC Bank of
18 things like the ability to close a branch, for example, you
19 were looking at the benefits not resulting from showing the
20 customer the photo of the check before sending it to the bank
21 or auto-capture, were you? You were looking at all of the
22 features that make up remote deposit capture.

23 A. Before I apportioned it, yes. So to come up with a total
24 benefits, I looked at all the benefits of using MRDC, and then
25 I apportioned it for everything except for auto-capture and

1 the other metric of the difference between the scanner and a
2 mobile deposit.

3 Q. You didn't apportion anything to showing the customer the
4 photo of the check before sending it to the bank, did you?

5 A. Well, that would be -- yeah, in that apportionment I was
6 only looking at the improvement in error rates due to
7 auto-capture.

8 Q. So you would agree with me you did not apportion anything
9 due to the feature of showing the customer the photo of the
10 check before sending it to the bank, did you?

11 A. Unless that's part of auto-capture, yeah, that -- my
12 apportionment related to auto-capture.

13 Q. Okay. Now, with respect to auto-capture, that's a
14 feature that PNC customers can't access today. Correct?

15 A. That's my understanding.

16 Q. Okay. So we can look and see whether eliminating the
17 ability of customers to use auto-capture had an effect on
18 PNC's business. Correct?

19 A. If you have the data.

20 Q. And one of the things you said was, well, maybe now
21 there's going to be more people who decide not to use PNC's
22 remote deposit functionality and who will instead deposit
23 their checks at PNC in some other fashion. Right?

24 A. Yes.

25 Q. Okay. And a PNC customer has two other significant

1 options they could use to deposit a check. Correct? They
2 could go to a branch --

3 A. Yes.

4 Q. -- or they could go to an ATM?

5 A. Yes.

6 Q. Now, it's -- remote deposit capture is more important to
7 USAA because they don't have but maybe one branch where
8 customers can go to deposit checks. Correct?

9 A. Correct.

10 Q. And the ATMs that USAA allows its customers to use don't
11 take deposits from those customers to go into USAA accounts,
12 do they?

13 A. I believe that's correct. That sounds familiar.

14 Q. So the ATMs that USAA customers use only allow them to
15 withdraw cash.

16 A. That's the extent of what I recall, yes.

17 Q. Okay. And you understand -- I mean, you told us
18 yesterday, I think, that you've been around the banking
19 industry for some time. Correct?

20 A. Yes.

21 Q. And you understand that the cost of maintaining an ATM
22 network includes all of the equipment that makes up the ATM
23 itself. Correct?

24 A. Sure, yes.

25 Q. And it means the connection between all the different

1 ATMs and the different banks, all the electronics and computer
2 and messaging and everything else. Correct?

3 A. Yes.

4 Q. And then you have to have a security system that protects
5 that ATM in some fashion from somebody breaking into it.

6 A. Yes.

7 Q. And somebody has to visit the ATM and bring a lot of cash
8 to put into the ATM, so you need like an armored car or some
9 other secured way of transporting the money. Correct?

10 A. Yes.

11 Q. And then to the extent there are checks that are
12 deposited in the ATM or other information that is left there,
13 somebody needs to collect that and take that to the
14 appropriate location.

15 A. Yes.

16 Q. And there's fraud associated with ATMs. Correct?

17 A. Yes.

18 Q. And so that's a significant cost. Right?

19 A. Yeah. I don't know the significance of it, but I'm sure
20 it could be.

21 Q. You haven't studied the fraud costs related to ATMs?

22 A. I haven't -- I don't recall seeing that, any numbers
23 along those lines.

24 Q. Have you talked -- have you studied the fraud costs
25 associated with Zelle?

1 A. No.

2 Q. And have you compared -- what did USAA offer before
3 Zelle?

4 A. I don't recall.

5 Q. And one of the reasons they changed to Zelle was because
6 Zelle was more secure and had less fraud costs. Right?

7 A. That does sound familiar, yes.

8 Q. Okay. So that's an important issue of the Zelle program.
9 Right? Reduced fraud costs?

10 A. Sure.

11 Q. Okay. And you told this jury that you used 60 cents per
12 Zelle transaction, and you said that was a relevant factor.
13 Right?

14 A. Yes.

15 Q. No checks are involved in Zelle, are they?

16 A. No.

17 Q. And Zelle provides a very secure way of transferring
18 money from one person to another. Correct?

19 A. That's right.

20 Q. And if you and your wife bank at the same bank, that's an
21 intrabank transfer. Correct?

22 A. Within Zelle, yes.

23 Q. So the cost of an intrabank transfer is not 60 cents, is
24 it?

25 A. No. That 60 cents is for out of network.

1 Q. And that's the highest possible amount that USAA would
2 ever have to pay.

3 A. Yes.

4 Q. The average amount that USAA actually pays for Zelle is
5 much lower?

6 A. Right.

7 Q. And the benefits that USAA gets doesn't have anything to
8 do with remote deposit capture, do they?

9 A. I'm sorry. Say that again, please.

10 Q. The benefits to USAA of their customers using Zelle don't
11 come from remote deposit capture or anything to do with a
12 check, do they?

13 A. No. That was an example of another ecosystem benefit
14 that is in the same industry and comparable in a lot of ways
15 to allow me to put a price on that.

16 Q. Now, if you wanted to know what an entire ecosystem costs
17 to offer remote deposit capture, you could look at the costs
18 of that entire remote deposit capture system, couldn't you?

19 A. No, I don't think so.

20 Q. Well, you know what's the cost of the remote deposit
21 capture system that PNC uses. You know what it costs PNC.
22 Correct? You saw that data.

23 A. Yes.

24 Q. You know that in order to get the software that goes onto
25 their customers' phones and to get the software that goes onto

1 their servers, they pay a fee to NCR. Correct?

2 A. Yes.

3 Q. And you know that they also, in return for paying that
4 fee to NCR, get upgrades and updates of the app and the
5 software. Correct?

6 A. Yes.

7 Q. And they get some maintenance as well.

8 A. Yes, I believe -- you're talking about their agreement
9 with NCR?

10 Q. Yes, I am.

11 A. Yes.

12 Q. And you understand that whatever patents or intellectual
13 property or trade secrets or source code lies behind what NCR
14 provides to PNC, they also get the rights to use that.
15 Correct?

16 A. To use NCR's, yes.

17 Q. And they get the right to use anybody else's that NCR
18 puts in there if NCR has obtained that license from the other
19 companies. Correct?

20 A. Yes. If they've gotten a license from other companies
21 and it flows through.

22 Q. And the customers of PNC get the same rights to use that
23 intellectual property --

24 A. I would assume so, yeah. It flows through it to the
25 customers.

1 Q. And the cost of that system that NCR provides is 12 cents
2 every time somebody deposits a check at a -- into a PNC
3 account. Correct?

4 A. I don't recall the exact number, but I'll take your word
5 for it.

6 Q. Thank you.

7 The -- we talked about the number of checks deposited by
8 PNC customers using remote deposit. Do you remember that?

9 A. Yes.

10 Q. And you gave us a number in your testimony earlier and
11 told us that that justified closing some bank branches.
12 Correct?

13 A. Which number are you talking about? I'm sorry.

14 Q. You said that PNC was able to close branches because a
15 number of checks were now deposited remotely as opposed to in
16 the branch. Do you recall that testimony?

17 A. Yes. Something along those lines.

18 Q. You have not been able throughout the course of all your
19 work to identify a single branch that was closed because all
20 of a sudden nobody wanted to come to their branch because all
21 they were doing was depositing their checks remotely, have
22 you?

23 A. That's correct. That's not the way that my analysis was
24 constructed.

25 Q. And if we calculate how many checks were deposited

1 remotely, you would expect if those people stopped depositing
2 remotely, that some would go to the branch and some would go
3 to the ATM. Correct?

4 A. Or to another bank. Right.

5 Q. Okay. But you assumed for purposes of the analysis you
6 showed the ladies and gentlemen of the jury, you assumed every
7 check that was deposited remotely is now going to go to a
8 bank. Correct?

9 A. Yes.

10 Q. And you looked at the number of checks and you looked at
11 the number of branches that PNC has, and you computed how many
12 checks per day that would result in coming to a bank, how many
13 more checks would come if they weren't deposited remotely.
14 Correct?

15 A. Yes.

16 Q. And on a per-day basis, the number of checks that would
17 come to the bank, if they weren't deposited remotely, works
18 out to somewhere between 45 and 54 checks a day, doesn't it?

19 A. I believe that sounds right.

20 Q. Okay. So -- and it takes about a minute to deposit a
21 check. Correct? On average?

22 A. I -- I've seen testimony about that from the CFO, PNC's
23 CFO.

24 Q. Okay. And you don't have any reason to dispute that
25 testimony that it takes about a minute, do you?

1 A. Not the amount of time that it physically takes to scan
2 or deposit the check.

3 Q. Right. The teller time.

4 A. Yeah. I think the teller time is different than just how
5 long it takes the teller to scan the check.

6 Q. Okay. But you would agree that the testimony that you've
7 read in this case says it takes a teller about a minute on
8 average to deposit a check. Sometimes longer, sometimes less,
9 but on average about a minute.

10 A. Yeah. And I think what threw me is the teller time, that
11 what I read, the testimony did not include customer
12 interaction and -- but just the -- the process of scanning
13 that check.

14 Q. Okay. And by customer interaction, you mean if you know
15 your teller and your bank and you say hi to them and you ask
16 them how their weekend was or what their kids are up to, that
17 kind of social interaction you think might be in addition to
18 the one minute.

19 A. Yeah. I waited behind two lines and two people were at
20 the teller windows yesterday, and it was four or five minutes
21 for both of them --

22 Q. Okay.

23 A. -- before I could get an answer.

24 Q. So if we have this 45 to 54 additional checks at each
25 branch each day, that's going to add up to something that in

1 terms of the teller time to deposit the check is a little bit
2 less than one hour for one teller each day. Correct?

3 A. If you're -- you're just using the 50 seconds?

4 Q. I'm using a minute.

5 A. Or a minute. Yeah. Right. But that wouldn't include
6 all the teller time is what I'm saying.

7 Q. Okay.

8 A. So your math would add up to what you added it up to.

9 Q. Okay. Let's use your four hours -- four minutes, I mean,
10 four minutes. That adds up to something under four hours of
11 time for one teller at each branch each day. Correct?

12 A. In that way, yes.

13 Q. Okay. And you're not saying that if all of a sudden PNC
14 was able to have -- let me withdraw that.

15 What I was asking you about was how much more time it
16 would take if all of the remote deposit checks were brought to
17 branches. Correct? And you understood that?

18 A. Yes.

19 Q. Now, let's assume the benefit to PNC is they would take
20 away that time because they take people who were depositing
21 the checks and they would then start using remote deposit
22 because that would be the benefit to PNC, in your opinion.
23 Correct?

24 A. Yes.

25 Q. And you're saying if I take away 45 to 54 checks from

1 each branch, that will allow PNC to start closing branches.

2 Correct?

3 A. Yeah. I wouldn't look at it -- you know, the checks
4 wouldn't be evenly spread by branch like that. Some would
5 have more, some would have less. I'm looking at it overall
6 and basing it on what the CEO said about the ability, if we
7 can start using this MRDC for deposits, we'll be able to close
8 branches and cut out 40 to 45 tellers, I think he said, just
9 based on 7,000 MRDC deposits per day, and they've gone up to
10 69,000.

11 So it's -- I guess my theory is not taking all those
12 checks and spreading them evenly across all branches and then
13 just asking people to work harder, but it's -- there's going
14 to be a concentration of checks in some places. Anyway,
15 sorry.

16 MR. STONE: Move to strike as not responsive.

17 THE COURT: Overruled.

18 Q. (BY MR. STONE) Mr. Kennedy, the -- you didn't do any
19 analysis of whether branches have check deposits distributed
20 differently or the same, did you?

21 A. No. It just wasn't -- it wasn't in my assumption that
22 a -- that you could spread them evenly across all the
23 branches.

24 Q. And what you used in your data was you saw that PNC
25 closed some branches. Correct?

1 A. Yes.

2 Q. You didn't do any analysis to say they closed the
3 branches because there were fewer checks deposited. It could
4 have been because the rent was too high, it could have been
5 because the surrounding area changed, it could have been
6 because they opened another branch, it could have been because
7 they opened a bigger ATM center. There's a whole lot of
8 reasons. You didn't do any analysis of the reasons any single
9 branch closed, did you?

10 A. Not any single branch, no.

11 Q. You didn't do an analysis of why two branches closed, did
12 you?

13 A. No, not individual branches. That's not how I did it.

14 Q. Now, you didn't apportion the damages that you've told
15 the jury should be awarded, you didn't -- among the patents
16 that you called the -- I think the 2006 patents, you didn't
17 apportion any amount to any one of those three patents, did
18 you?

19 A. That's correct.

20 Q. You talked a little bit about what you said were the
21 profits of accounts that made use of remote deposit. Do you
22 recall that testimony?

23 A. Yes.

24 Q. And you said because people use remote deposit, PNC makes
25 more money.

1 A. Yes. They are -- they are connected.

2 Q. And you attribute it had more money to the fact that
3 there are some people who found it helpful to, for example,
4 ask for instant funds, instant credit to their account.

5 A. Yes.

6 Q. And when people ask for instant credit to the account,
7 that means the risk of a bounced check, for example, or any
8 problem with whether there's insufficient funds in the account
9 of the person who wrote the check, that risk shifts from the
10 person who deposited the check to PNC. Correct?

11 A. Yeah. I don't know where it ultimately would end up, but
12 it would increase the risk of money going out before the check
13 has cleared.

14 Q. Okay. So PNC accepts a risk for people who want to
15 deposit and get their funds right away. It doesn't have a
16 chance to see if there's money in the account of the person
17 who wrote the check. Correct?

18 A. Right. They're basically loaning the money until they
19 get it back from the bearer of the check.

20 Q. They are basically taking a risk, aren't they?

21 A. Yes.

22 Q. Okay. And now people who are more likely to have their
23 funds right away, I think we've heard -- you were here for Mr.
24 Prasad's testimony. Right?

25 A. Yes.

1 Q. He told us that people who were more likely to want their
2 money right away may be people who are living paycheck to
3 paycheck. Right?

4 A. Yes. I've certainly experienced that in my younger
5 years.

6 Q. And so have I. And we heard that from your testimony
7 even that people who are more likely to want to use the
8 express funds or people who may be living check to check.
9 Correct?

10 A. Yeah, I agree with that.

11 Q. Or who maybe have to make their monthly rent payments
12 right away and need to get a check in so they can write a
13 check on their account?

14 A. Yes.

15 Q. And those are people for whom remote deposit is
16 particularly attractive. Right?

17 A. Yes.

18 Q. So the people who are more likely to want to get ready,
19 quick access to their funds are more likely to use remote
20 deposit.

21 A. Yes.

22 Q. So you can't say that using remote deposit means you're
23 more likely to need express funds because, in fact, it's more
24 likely true that needing to use express funds makes you more
25 likely to use remote deposit. Correct?

1 A. Yeah. You could look at it that way.

2 Q. Yeah. Because correlation, the fact that two things are
3 correlated, doesn't tell you necessarily that one is the cause
4 of the other. Correct?

5 A. Not necessarily. Right.

6 Q. It could be exactly the other way--that it could be that
7 the event of needing access to express funds makes you more
8 likely to use remote deposit.

9 A. It could be in individual circumstances, yeah.

10 Q. And you haven't done an analysis for this case of which
11 way that causal link runs, have you?

12 A. Well, from what I've seen in the PNC documents, it
13 describes it the other way.

14 Q. It describes there to be a correlation, doesn't it?

15 A. It describes it as people that are using MRDC accounts
16 are more profitable because they're going to be in this
17 category that causes fees and overdraft, and that's the
18 correlation that PNC made.

19 Q. It tells us that people who are more likely to want ready
20 access to their funds are more likely to find remote deposit
21 particularly attractive, doesn't it?

22 A. Sure.

23 Q. Okay. You talked to us yesterday about when the damages
24 period that you calculated starts. Do you remember that?

25 A. Yes.

1 Q. And it starts for purposes of what you've done when USAA
2 complied with the marking statute. Right?

3 A. Yes.

4 Q. And there's a law that says you can't recover damages
5 until you have properly marked your product. Correct?

6 A. There is a rule about marking, and I know it's -- there's
7 different circumstances that I'm not aware of that would
8 trigger whether something classifies as marking or not, but
9 yes.

10 Q. And you -- for purposes of this case, the claim that USAA
11 is making is that they marked by putting information up on
12 their website. Correct?

13 A. I believe that's the testimony yesterday.

14 Q. And that's how you came to the dates you used. Correct?

15 A. Yes.

16 Q. And the first date for which you have actually
17 seen -- let me back up.

18 You know how to do a screenshot on your computer or your
19 phone, don't you?

20 A. Yes.

21 Q. And you also know how to print a web page. Correct?

22 A. I think so, yeah.

23 Q. Okay. And the first date for which you saw a printed web
24 page or screenshot of the actual website of USAA bank showing
25 any of the patent numbers at issue in this case was not until

1 when?

2 A. I don't recall the date of the screenshot. If you could
3 show it to me, I could tell you, but...

4 Q. Well, it was not the date that you've started your damage
5 calculation at, was it?

6 A. No. The date I started that was what I understood
7 the -- PNC had, I guess, asked the Court for that date as a
8 limit on damages, and I used that.

9 Q. Well, what is the first date you used?

10 A. It's December 15th, 2016.

11 Q. And did you see any copy of a web page or screenshot of a
12 web page from December 15th of 2016?

13 A. I don't believe I -- I may have, but I just don't recall.

14 Q. And didn't you do that as part of your investigation to
15 go back and say, I want to see exactly when there is a copy of
16 a web page or a screenshot of the web page to see when that
17 information -- I can see it that it's out there?

18 A. No, because it's a legal issue and it's often decided by
19 the parties or the Court when the damages should start. And
20 so I used that as an assumption. I don't determine when
21 infringement begins.

22 Q. Did you -- the question for purposes of damages is not
23 when infringement begins, is it?

24 A. Correct.

25 Q. It's when you mark?

1 A. Right. And that's not something I -- I don't determine
2 the marking dates.

3 Q. Okay. So if the marking date was determined by the jury,
4 if the jury says, We want to know when the first print of a
5 web page or copy of a screenshot was available, show it to us,
6 if the jury determined that it was a later date, that would
7 change your calculations. Correct?

8 A. It could, yes.

9 Q. And have you done a calculation of what you would claim
10 the damages would be if the first time there's a copy of a web
11 page or a screenshot was June 13th of 2019?

12 A. No.

13 Q. Now, yesterday you told us that an agreement between USAA
14 and -- I mean, between USAA and Bremer Bank should be adjusted
15 when you try to figure out what it would mean for PNC Bank
16 because Bremer is a smaller bank than PNC.

17 A. That's one of the reasons.

18 Q. And Bremer has fewer deposits done remotely or done any
19 way than PNC. Correct?

20 A. That's one of the reasons, yes.

21 Q. Now, Wells Fargo is larger than PNC. Correct?

22 A. Yes.

23 Q. And during the time period up until 4.20.1 was released,
24 we know exactly how much bigger Wells Fargo was than PNC
25 because we can look backwards in time and see that. Right?

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(Redacted.)

1 have not looked so I don't know, but I know that some patents
2 have no value; some have greater value. There's a patent skew
3 that's been noticed, but I don't know what the level of value
4 is on the other patents?

5 Q. Okay. That's not part of what you've analyzed here.

6 A. Correct.

7 Q. And when USAA and Wells Fargo sat down to negotiate this
8 license, they didn't put any particularized value on any of
9 the patents, did they?

10 A. They had values -- I mean, they had rates in mind for
11 the --

12 THE COURT: Let him finish.

13 MR. STONE: Sorry.

14 Q. (BY MR. STONE) You reviewed Mr. McKinley's deposition
15 testimony for purposes of your work in this case. Right?

16 A. Yes.

17 Q. And Mr. McKinley told us he's at USAA. Correct?

18 A. Yes.

19 Q. And he's one of the people in charge of licensing patents
20 for USAA.

21 A. Yes.

22 Q. And he was designated to testify as the corporate
23 representative for USAA on the Wells Fargo license. Correct?

24 A. Yes.

25 Q. And he told us that when they sat down to negotiate that

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1 yet. They had been filed but not issued?

2 Q. And the fact that the patents were filed, the filing of
3 the patents and the applications was confidential during the
4 entire process until the patent issued.

5 A. I heard testimony about that, and I don't -- I believe
6 that's correct. I'm not sure if there was some testimony
7 about earlier disclosure or not.

8 Q. Okay. So with regard to the negotiation, the earliest
9 date you think it would have occurred on is what?

10 A. In 2016.

11 Q. Okay. So in 2016 -- 2016 is the year that PNC released
12 auto-capture. Correct?

13 A. Correct.

14 Q. And this negotiation would have occurred just before or
15 just after PNC released auto-capture. Right?

16 A. Yes.

17 Q. And auto-capture, you understand, was a new feature that
18 was given to -- offered to PNC by its vendor for free.

19 A. I don't -- I'm not sure that I understood that. I'll
20 take your word for it.

21 Q. Okay. I appreciate that. Thank you.

22 And at the time that this negotiation occurred, PNC would
23 know that out in the future, it could in July of 2021 remove
24 auto-capture. Correct?

25 A. Yes, because that's -- we're cutting the damages period

1 off at the date that that new version came out.

2 Q. Yes. So I know a negotiation where you know what's going
3 to happen in the future is really strange. Right?

4 A. Right.

5 Q. I mean, it's not -- you've never been in such a
6 negotiation in real life where you know what the future is
7 going to bring. Correct?

8 A. We try to predict it, but we don't --

9 Q. We try to predict it and sometimes we're right and
10 sometimes we're wrong?

11 A. That's right.

12 Q. Okay. So -- but we -- for purposes of what we do in this
13 case, we assume everything that happens in the future that has
14 actually now happened, you would have known back then.

15 A. Yes. Well -- and I hesitate because you can consider
16 things out into the future, but the weight of evidence closer
17 to the hypothetical negotiation is often given more relevance
18 than what happened later in time.

19 Q. Okay. And let me come back to that point with you, if
20 you don't mind, Mr. Kennedy.

21 But -- so one of the things that PNC would have known
22 when they sat down to have this negotiation is either we
23 haven't yet added auto-capture so maybe we just simply
24 shouldn't add the feature. Correct?

25 A. Yeah, that's one, to not add it.

1 Q. And the other one is, okay, we added it a few months ago,
2 if they already had, but we'll just take it back out again.

3 A. They could do that, yes.

4 Q. And they would know, because we can look now and see,
5 what benefits they got from adding it or what effect it had
6 when they removed it. Correct?

7 A. Yes.

8 Q. Okay. And you talked to us about something called an
9 increase in error rates. Correct?

10 A. Yes, or -- yes.

11 Q. And the error rates without auto-capture for PNC are
12 still better than or the same as the error rates associated
13 with depositing a check at an ATM. Correct?

14 A. I just don't recall the numbers off the top of my head.

15 Q. Okay. And the other thing that they would have discussed
16 in this negotiation, this hypothetical negotiation, is they
17 would have discussed, well, what would be the impact of taking
18 out the showing the photos to the customer before the check is
19 sent to the bank. Right? They would have discussed that.

20 A. They could have, sure.

21 Q. And PNC would have known what are the effects, if there
22 are any, of taking out the feature of showing the photos to
23 the customer before sending the check to the bank. Right?
24 Because they've done that?

25 A. Yes.

1 Q. Okay. And you wouldn't expect PNC to have thought it
2 made sense to agree to pay USAA more than what it would cost
3 PNC, if it cost it anything, to not offer those two features
4 to its customers. Correct?

5 A. If there were no benefits associated with it.

6 Q. Well, you would expect them to think about what the
7 benefits are and take that into account as well.

8 A. Right. And that's what I've done.

9 Q. And so you took into account the benefits of MRDC.
10 Correct?

11 A. But apportioned it to -- down to the patented technology.

12 Q. You didn't apportion it to the two features we've been
13 talking about. You told me that earlier. Correct?

14 A. I apportioned it by the difference between what -- the
15 improvement in error rates within and without auto-capture.

16 Q. Okay. So what you've done is you've done some
17 apportionment based on your analysis of error rates. Correct?

18 A. Yes.

19 Q. There's been no change in the number of accounts at PNC
20 Bank since 4.20.1 was released, has it?

21 A. Yeah. I'm not sure.

22 Q. There's more accounts today than there was before July of
23 2021 at PNC Bank. Isn't that right?

24 A. I would expect so.

25 Q. And there's more checking accounts as well.

1 A. I would expect since it's been growing.

2 Q. And there's more remote deposits being made each month
3 than there was before July of 2021?

4 A. Yeah. I just don't know the exact number, but I'll take
5 your word for it.

6 Q. And there's more accounts that use remote deposit now
7 than there was before 4.20.1. Correct?

8 A. I'm not certain about that, but --

9 Q. Have you studied that?

10 A. It may be in my report, but I just don't recall off the
11 top of my head.

12 Q. Okay. And you didn't -- you know what percentage of
13 accounts, at least approximately, at PNC Bank use remote
14 deposit, don't you?

15 A. Yes.

16 Q. And it's about eight or nine percent, isn't it?

17 A. I think I've seen one place where that is -- those
18 numbers are used.

19 Q. And you haven't formed a view that's any different than
20 that, have you?

21 A. Not that I recall right now.

22 Q. Okay. I mean -- because you studied that. You
23 have -- you looked at the number of accounts that used remote
24 deposit and you looked at the total number of accounts?

25 A. Right.

1 Q. And you have charts in your report that calculate those
2 differences. Correct?

3 A. Yes.

4 Q. And in that report, if you take the numbers that you
5 looked at and the figures you drew in your report, it shows
6 the percentage to be between eight and nine percent, doesn't
7 it?

8 A. Yeah. I'll take your word for it. We could get my
9 report out and look, but I don't have a reason to disagree
10 with you.

11 Q. Okay. So that would mean that 91 or 92 percent of the
12 accounts at PNC don't use remote deposit. Isn't that right?

13 A. Yes, if that's the percentage.

14 Q. Okay. And at the time of this hypothetical negotiation,
15 one of the other things that would be known to both the people
16 at PNC Bank and the people at USAA is what USAA was asking
17 banks -- other banks to pay at that time for a license to all
18 of their check deposit patents. Correct?

19 A. Yes.

20 Q. And they made firm offers to two banks at that time.
21 Right?

22 A. Yes.

23 Q. And by a firm offer, I mean an offer such that if the
24 other side had said yes, I accept, they would have signed the
25 contract.

1 A. That's reasonable to assume. It may not have happened,
2 but they did make an offer.

3 Q. And those two banks were the ones you mentioned to us
4 yesterday--Dollar and SunCoast. Correct?

5 A. Correct.

6 Q. We can do this same analysis for Bremer that we did for
7 Wells Fargo, can't we? We can look at the relative size of
8 the deposits, we can look at the number of patents, we can
9 look at the time period. Correct?

10 A. Yes, you could.

11 Q. And the Bremer agreement was for a per-deposit amount.
12 Correct?

13 A. Yes.

14 Q. And so we don't need to worry about who had more deposits
15 or fewer deposits. We know what it is on a per-deposit basis.
16 Right?

17 A. Right.

18 Q. And we know that it was their 107 patents plus any more
19 that are issued in the future. Correct?

20 A. Yes.

21 Q. And we know that it also ran out to 2031. Correct?

22 A. Yeah. Again, I believe that's around the right date.

23 Q. Okay. So if we're sitting in this hypothetical
24 negotiation, you would expect PNC to talk with USAA about what
25 USAA had offered to other banks at the same time period.

1 A. Yes.

2 Q. And you think that might be given more weight because it
3 is an event that's beginning at the time as opposed to out in
4 the future?

5 A. Which event? What they offered?

6 Q. The offers that were being made at that time to other
7 banks.

8 A. Yeah. I've -- in negotiations, I don't consider offers.
9 They have to be actual agreements.

10 Q. Well, I know you told us that yesterday, but these were
11 firm offers such that if the banks had thought the price
12 wasn't too high and had accepted it, that would have been an
13 agreement. Right?

14 A. It could have been, but it wasn't.

15 Q. If you were offered to buy a house for \$112,000 and you
16 knew it was there, they offered it to you, it was a signed
17 offer, you could accept it and the deal would be done, and you
18 thought, I don't -- that's way too expensive, I'm not going to
19 pay that much money, I think this house is worth a lot less
20 than that. The fact that the seller had offered that price in
21 a firm way would be of interest to somebody else who came
22 along and wanted to buy the house. Correct?

23 A. Sure.

24 Q. Okay. So for our purposes in this hypothetical
25 negotiation, PNC would have said, we understand you offered a

1 firm offer to at least two banks for a particular price that
2 we know what it is, and that's going to enter into what we
3 think you should offer us.

4 A. Uh-huh. Yes.

5 Q. Correct?

6 A. Yes.

7 Q. Okay. And they also would think about what the Wells
8 Fargo license was, and they'd think about how much of that was
9 for the four patents at issue in this case. Correct?

10 A. Yes.

11 Q. And they'd also think about the Bremer license. Correct?

12 A. Yes. I think it would be considered by both.

13 Q. Okay. And then you told us yesterday about a license
14 with an insurance company--right?--called Assurant?

15 A. Yes.

16 Q. You don't know what Assurant does with respect to
17 depositing checks remotely, do you?

18 A. I know a little bit about it.

19 Q. It's not something that is the core of their business, is
20 it?

21 A. It's -- no, it's -- involves checks that need to be dual
22 signed related to insurance proceeds.

23 Q. And the issues in this case don't relate to dual
24 signature checks at all, do they?

25 A. Correct.

1 Q. Okay. Thank you.

2 MR. STONE: No further witnesses -- no further
3 questions. I pass the witness. Sorry, Your Honor.

4 THE COURT: If only it were true. Okay.

5 MR. STONE: Yes. I would have made a lot of
6 friends. I understand.

7 THE COURT: Counsel, approach the bench before we
8 proceed with redirect.

9 I assume you have redirect, Mr. Bunt?

10 MR. BUNT: I do, Your Honor.

11 THE COURT: Mr. Sheasby, join us up here, please.

12 MR. SHEASBY: Yes, Your Honor.

13 (The following was had outside the hearing of the
14 jury.)

15 THE COURT: Mr. Sheasby, is there some reason you
16 have to continue to get up and walk back and forth while
17 opposing counsel is examining witnesses? You seem to be the
18 only lawyer in this courtroom who can't stay seated.

19 MR. SHEASBY: Yes.

20 THE COURT: And the Defense counsel are not getting
21 up and walking around and going to IT people and letting the
22 swinging door flap back and forth while you're at the podium.
23 And you need to extend the same courtesy to them.

24 MR. SHEASBY: I will do so, Your Honor.

25 THE COURT: All right. Let's proceed with redirect.

1 MR. SHEASBY: Thank you, Your Honor.

2 (The following was had in the presence and hearing
3 of the jury.)

4 THE COURT: All right. Mr. Bunt, proceed with
5 redirect examination, please.

6 MR. BUNT: Thank you, Your Honor.

7 Mr. Huynh, would you mind pulling up PDX 10.11.

8 REDIRECT EXAMINATION

9 BY MR. BUNT:

10 Q. Mr. Kennedy, do you recall receiving a number of
11 questions about the Wells Fargo license?

12 A. Yes.

13 MR. BUNT: Do we have the slides? Thank you, Mr.
14 Huynh.

15 Q. (BY MR. BUNT) Did the Wells Fargo license with USAA
16 include the same patent families as this suit against PNC?

17 A. Yes, the same patent families were asserted in the Wells
18 Fargo case--the 2006 families and the 2009 families.

19 Q. And were there four patents at issue in the Wells Fargo
20 matter?

21 A. Yes.

22 Q. And are there four patents from those two families at
23 issue in this case?

24 A. Yes.

25 MR. BUNT: And if we could go to slide No. 14.

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(Redacted.)

1 A. Well, first, they're not competing with USAA like PNC is.
2 They're not competitors. In fact, Assurant has a special
3 relationship and provides their healthcare coverage to USAA
4 members, their products. And so that's not really an arm's
5 length transaction. There's nothing wrong with it, but
6 they're too close, they have a long-standing business
7 relationship.

8 And Bremer is, as we see here, a lot smaller. They're
9 not going to -- as a smaller bank not be able to get the
10 larger ecosystem benefits and savings of being able to close
11 408 branches like PNC was able to do.

12 Q. How many patents were Bremer and Assurant accused of
13 infringing?

14 A. None. They weren't accused of infringing.

15 Q. Is that a different factor that would be taken into
16 account in this hypothetical negotiation?

17 A. Sure, and in two ways. They weren't accused of
18 infringing. They voluntarily came and asked for a license,
19 and -- but at the same time, there was no proof that the
20 patents were valid and infringed, and so that kind of discount
21 would also be applied to any rate that they got.

22 Q. Do you recall some questions about the SunCoast and
23 Dollar Bank offers?

24 A. Yes.

25 Q. Why didn't you treat those as comparable for purposes of

1 this hypothetical negotiation?

2 A. Well, in all of my licensing experience, offers do not
3 get considered as a comparable license because even though
4 there's an offer, even made by USAA, there still has to be an
5 agreement drafted, and anybody can change their mind in
6 between an offer and the agreement that's drafted and what
7 type of provisions might be in that agreement.

8 So they just -- and they're just so -- the main thing was
9 those banks are so different. PNC is 60 times larger than
10 them. So even if it was a license agreement, I'd probably
11 come to the same conclusion, but those two factors alone
12 really preclude you from using those to set a rate.

13 Q. Mr. Stone also asked you some questions about did you
14 look at just the two factors -- sorry, the two features that
15 he claims were changed in the 4.20.1. Do you recall those
16 questions?

17 A. Yes.

18 Q. As a damages expert, do you look at all the elements of
19 the claims or just a couple of features?

20 A. We look at everything--what, you know, the
21 whole -- whatever's covered by the patented technology, and
22 then you're apportioning it down to just the claims.

23 Q. And is the entire invention set forth in the claims that
24 are in the jurors' notebooks over there?

25 A. Yes, they are.

1 Q. Did Mr. Stone talk to you about the entire claims that
2 are in the patent or just the features of the patent?

3 A. Just those two features.

4 Q. And did you apportion when you did damage analysis to the
5 actual patent claims?

6 A. Yes, I did.

7 Q. Did you consider 4.20.1 to be a viable non-infringing
8 alternative?

9 A. No.

10 MR. BUNT: Can we go to PDX 10.52?

11 Q. (BY MR. BUNT) Why did you not consider that modification
12 to be a viable non-infringing alternative?

13 A. So you can't take certain patents out of a product and
14 say you're not infringing anymore if you then turn and use
15 other patents by the same owner. And that's what's happened.
16 These three patents, they're different but they still
17 infringe. We heard Doctor Conte talk about that. And so that
18 makes it -- you can't use it as a non-infringing alternative.

19 THE COURT: Do you have an objection, Mr. Stone, or
20 do you just want to stand up?

21 MR. STONE: I do, Your Honor.

22 THE COURT: State your objection.

23 MR. STONE: My objection is this is inconsistent
24 with the Court's direction to the parties as to how to address
25 this issue.

1 THE COURT: We've been over this territory before.

2 The objection's overruled.

3 Q. (BY MR. BUNT) Would the parties of the hypothetical
4 negotiation know this fact?

5 A. Yes.

6 Q. And how would this fact affect the negotiation that's
7 taking place between USAA and PNC?

8 A. They would not be able to use 4.20.1 as their way to
9 avoid the patent -- to avoid the patents-in-suit, so it would
10 not be a non-infringing alternative.

11 MR. BUNT: If we could go, Mr. Huynh, to slide 50.

12 Q. (BY MR. BUNT) Did PNC identify any non-infringing
13 alternatives?

14 A. No. This is their corporate representative who was asked
15 that, and we heard this yesterday in his testimony.

16 MR. BUNT: Can we also go to slide 83, PX 83?

17 Q. (BY MR. BUNT) Can you explain what impact the 4.20.1
18 change had on PNC's error rates?

19 A. Sure. So these are the total error rates before and
20 after the adoption of 4.20.1. The error rate before was 7.7
21 percent. And after, it more than doubled. It went up to 19.9
22 percent, which is 156 percent increase.

23 And then another way to look at it is how many of the
24 MRDC visits ended in failure? Instead of trying again and
25 trying again, it just failed. And that went up from 3.31

1 percent up to 5.36 percent, a 62 percent increase.

2 And a very significant factor was the Reg E disputes.
3 You heard something about that, but that's a real bad error
4 that causes -- as an auditor, when I would see Reg E disputes
5 go up a lot for a bank, I knew they had a problem and needed
6 to fix it. And this went up a lot, from 253 before to 2,652
7 after. And that's a 948 percent increase.

8 Q. Would these factors be considered or would they be known
9 at the parties at the hypothetical negotiation?

10 A. Yes.

11 Q. And would they affect whether the parties of that
12 hypothetical negotiation saw the 4.20.1 as a viable
13 non-infringing alternative?

14 A. Yes.

15 Q. There was a comment made by Mr. Stone that there's more
16 checking accounts now that PNC has, so 4.20.1 must not have
17 made a change. Has PNC also acquired another bank since that
18 time?

19 A. Yes, they did. They acquired a bank that had a branch
20 here in town.

21 Q. And could that affect the number of checking accounts
22 that they now have?

23 A. Yes. I believe there were quite -- quite a few branches
24 that were bought over several states in Texas and in the
25 Southeast that would obviously make their deposits larger.

1 Q. There was a comment by Mr. Stone about the Zelle
2 ecosystem rate. Do you recall that?

3 A. Yes.

4 Q. And what is the significance of the 60 cent rate that
5 USAA pays up to for Zelle?

6 A. So the up-to amount, that rate, that relates to not when
7 I send my wife money by Zelle from one of our accounts to
8 another account, but it's out of network. And so you're
9 trying to keep your customers from going out of network, and
10 so that's the price that has to be paid by banks when their
11 customers go out of network.

12 And so it relates to exactly what we're trying to do with
13 the ecosystem is keep them within the network. So that's why
14 I used that rate versus the lower rates that I -- like I get
15 when I transfer -- or not I get but Wells Fargo pays when I
16 transfer money to my wife between accounts in network.

17 MR. BUNT: Mr. Huynh, could we go to PDX 10.36,
18 please?

19 Q. (BY MR. BUNT) Do you recall some questions from Mr.
20 Stone suggesting that bank closings may be related to
21 something other than MRDC?

22 A. Yes.

23 Q. And, first of all, did you apportion all the branch
24 savings that would take place to MRDC or was that limited by a
25 percentage?

1 A. Yeah -- no, it was not all apportioned to MRDC. So the
2 branch closure numbers, I only used 20 percent of that, not
3 all -- I wasn't attributing all of the branch closures to
4 MRDC. But 20 percent of these costs were related to check
5 deposits.

6 Q. But even so, in PX 106, what is PNC's former CEO saying
7 about the effect of MRDC and branch savings?

8 A. So he's -- he's talking about the moving service to other
9 channels--we talked about the channels are MRDC, teller, and
10 ATM--and then optimizing the number of branches we have--and
11 that means closing the number of branches that they did--and
12 we expect to save in the hundreds of millions of dollars over
13 the next five years.

14 So he's attributing hundreds of millions of dollars over
15 five years to optimizing branches based on moving service
16 transactions to other channels.

17 Q. I think there was a suggestion that it would only require
18 tellers at a bank to handle 45 to 54 more checks per day. Do
19 you recall something about that?

20 A. Yes.

21 Q. Does that assume that it's only taking about 50 cents to
22 make a deposit?

23 A. 50 seconds?

24 Q. 50 seconds. I'm sorry. Yes.

25 A. Yes, that's correct.

1 Q. Is that a reasonable assumption?

2 A. No. I think I had brought up it's -- that's the time to
3 just process that check, but you can't just take the check
4 from the customer and turn them away. You know, there's
5 interaction, and you want to have interaction with them. And
6 like I said, I waited four or five minutes.

7 And if you base their 50-second number that they used to
8 come up with this \$1 number, and you just say it's four
9 minutes or four times that one dollar, you get right back
10 to -- for the whole interaction, you get right back to the
11 number that their CEO disclosed to the public of \$4 in the
12 investor conference.

13 Q. Does that number also assume that every PNC customer who
14 cannot make a mobile remote deposit capture is going to drive
15 to the bank to now make one of those 48 to 54 deposits?

16 A. No, I -- I wouldn't. I wouldn't deposit it in another
17 account.

18 Q. All right.

19 A. And some people, if they don't have another account, they
20 start thinking about changing banks to go with a bank that has
21 MRDC.

22 Q. You were asked some questions about profitability of the
23 mobile remote deposit capture option.

24 MR. BUNT: Mr. Huynh, can we go to slide No. 27?

25 Q. (BY MR. BUNT) What did PNC say in their key business

1 initiative under factor No. 5 under the business case for
2 mobile remote deposit?

3 A. So they're using it to attract new and retain existing
4 DDA, which is demand deposit account, household relationships,
5 and they're focusing on the Gen Y and X households in
6 particular. And this is in their mobile remote deposit
7 business initiative.

8 MR. BUNT: And if we could go to slide No. 45.

9 Q. (BY MR. BUNT) Why is it significant that they were
10 marketing and trying to attract and retain these households
11 that are made up of Gen X and Gen Y folks?

12 A. Because those are the ones that oftentimes are short on
13 money to pay bills, they're just getting started, and want
14 their money faster to either make a payment or make sure that
15 a check gets deposited before a check they've written clears,
16 and to avoid overdraft fees.

17 MR. BUNT: If we could go to Mr. Wilkinson's slide
18 2.17.

19 Q. (BY MR. BUNT) Were you in the courtroom the other day
20 when Mr. Wilkinson was testifying?

21 A. I was.

22 Q. Do you recall this testimony and PX 196 and 195 that were
23 shown to the jury about the marking from 2016?

24 A. Yes.

25 Q. Did you limit your damage analysis to those dates that

1 are set forth in the marking?

2 A. I do.

3 Q. One thing --

4 MR. BUNT: Mr. Huynh, would you mind going to slide
5 22, PDX 10.22?

6 Q. (BY MR. BUNT) Mr. Kennedy, the folks on my team
7 indicated I may have called out the wrong PX number on this
8 slide. This is PX 296, this document from PNC. Is that
9 correct?

10 A. Yes.

11 MR. BUNT: If we could go to slide No. 60.

12 Q. (BY MR. BUNT) Can you remind the ladies and gentlemen of
13 the jury one more time what are your total damage numbers
14 related to PNC's benefits from using the patents-in-suit?

15 A. \$300,400,000 split between the 2006 family and the 2009
16 family by the amounts \$115,500,000 and \$184,800,000,
17 respectively.

18 Q. Thank you, sir.

19 MR. BUNT: I'll pass the witness.

20 THE COURT: Further cross-examination?

21 MR. STONE: Yes, Your Honor. Thank you.

22 THE COURT: Please proceed.

23 RE CROSS EXAMINATION

24 BY MR. STONE:

25 Q. Mr. Kennedy, you were -- in response to a question, you

1 said that PNC had recently purchased some banks in Texas and
2 other parts of the southern states. Do you remember that?

3 A. Yes.

4 Q. Now, you didn't mean to suggest that PNC's accounts only
5 are continuing to go up because of that acquisition, did you?

6 A. No.

7 Q. I mean, you've studied what was happening to the accounts
8 of historic PNC customers without regard to any new accounts
9 that were obtained through a bank acquisition, haven't you?

10 A. That's correct.

11 Q. And it would be accurate and correct to tell the jury
12 that those accounts of PNC account holders continued to go up
13 after 4.20.1 without regard to acquiring any other banks.
14 Right?

15 A. Yes, that's correct.

16 Q. Okay.

17 MR. STONE: Now, could we maybe bring up, please,
18 PX 926?

19 Q. (BY MR. STONE) Now, Exhibit 926 is actually a copy or a
20 printout of what was on a web page of USAA. Correct?

21 A. I -- that could be. This was part of Mr. Wilkinson's
22 testimony, and I'll take your word for it that that's what he
23 called it or said that it was.

24 Q. And the date on which this became available was the date
25 you and I talked about earlier of July 19th, 2019. Correct?

1 A. I see that date there. I don't know that -- I don't know
2 anything more about it than I see the date at the top.

3 Q. And what you were just shown by Mr. Bunt was some
4 internal software or source code at USAA that related to what
5 they should have put up on their website. Correct?

6 A. I don't know that I can describe it that way.

7 Q. Well, you don't know whether what he showed you ever
8 actually showed up on the website, do you?

9 A. I don't know.

10 Q. Nobody has ever shown you a copy of the web page?

11 A. No.

12 Q. And nobody's ever shown you a screenshot of that
13 information that Mr. Bunt just showed you. Right?

14 A. I don't know if that's the case or not. I just don't
15 recall.

16 Q. And you've never talked to the person who does the web
17 content management at USAA that we heard mentioned by
18 Mr. Wilkinson, have you?

19 A. No.

20 Q. You don't even know that person's name. Right?

21 A. No.

22 Q. And Mr. Wilkinson didn't recall that person's name,
23 either, did he?

24 A. I don't recall if he didn't recall.

25 Q. Okay. So the only piece of paper that we've seen as an

1 exhibit in this case that would look like it's actually a copy
2 of the web page is the one I just showed you, Exhibit PX 926.
3 Correct?

4 A. And what was your question again?

5 Q. That's the only exhibit that we've been shown in this
6 case that actually appears to be a copy of a web page or a
7 screenshot of a web page that shows the marking by listing the
8 numbers of patents on USAA's website. Correct?

9 A. It -- I guess it appears to me to be a screenshot of a
10 website. I don't know for sure.

11 Q. And we haven't seen any earlier screenshots or printouts
12 of web pages for earlier dates that list patent numbers like
13 this on USAA's website, have we?

14 A. I think the only things I've seen are this and the other
15 screenshot, and I'm not sure what -- whether that was a
16 screenshot off of the web page or not.

17 Q. You heard Mr. Wilkinson testify in response to questions
18 by Ms. Smith that that was internal USAA code. Correct? You
19 remember that?

20 A. I don't -- yeah, I don't recall exactly what he said
21 about it.

22 Q. You don't remember when Ms. Smith asked Mr. Wilkinson,
23 this is something that the people, the public has never seen?
24 You don't remember that?

25 A. I remember the questions. But if you want to refresh my

1 memory with a transcript, I could tell you. I just don't
2 recall the exact characterization of it.

3 Q. Okay. The number of Reg E disputes that you talked
4 about, you told us they went up to 2,652 per month. Correct?

5 A. Yes.

6 Q. And that's out of about 2 million?

7 A. Yes.

8 Q. And that's about the same level of issues that arise in
9 the normal course when people use ATMs. Correct?

10 A. Reg E disputes?

11 Q. Yes.

12 A. On the ATM?

13 Q. Yes.

14 A. I'm not sure I understand your question. Or could you
15 please ask it again and clarify?

16 Q. Sure. An ATM works the same way mobile remote deposit
17 works. Right?

18 A. Yes.

19 Q. You put your check in, the system scans the check, the
20 OCR software reads the amount, the OCR software reads the MICR
21 line, the information about the account on which the check is
22 drawn and the bank at which that account is, and the amount of
23 the check is submitted along with a check image to the bank.
24 Correct?

25 A. Yes.

1 Q. And that's the same process that you do when you do it
2 remotely with your phone, except in an ATM it's done with
3 something much like a scanner with a fixed focal length and a
4 white background and a high resolution camera and no shadows
5 and no risk of skewing or anything like that. Correct?

6 A. I believe that's correct, yes.

7 Q. Okay. But mistakes are still made by the ATM or the
8 software in terms of correctly reading the amount or correctly
9 reading what's on the MICR line. Correct?

10 A. Yes.

11 Q. And so that results sometimes in an error in terms of the
12 amount that is deposited in somebody's account. Correct?

13 A. Uh-huh. Yes.

14 Q. And so that has an error rate about the same as what you
15 told us--2652 out of 2 million.

16 A. Okay.

17 Q. Is that right?

18 A. I'll take your word for it. I just don't recall off the
19 top of my head.

20 Q. In deciding whether the number of disputes, the number of
21 Reg issues that arose with respect to 4.20.1, you considered
22 whether that number was usual or unusual, didn't you?

23 A. Yes.

24 Q. Okay. And you concluded it was not unusual. Right?

25 A. What was not unusual?

1 Q. The number of Reg E disputes that arose was not unusual
2 given what happens with ATM and others.

3 A. Yeah. I wouldn't say -- yeah, I don't recall saying that
4 it wasn't unusual.

5 Q. Well, what fraction of 2 million is 2652, roughly?

6 A. I'd have to do the math because I don't want to be off by
7 a couple of digits and embarrass myself. Would you like me to
8 calculate it?

9 Q. Sure. Please do. I wouldn't expect somebody not to have
10 a calculator, so that's where we are today.

11 THE COURT: All right. No more conversation.

12 Questions and answers.

13 THE WITNESS: What were the numbers you'd like me to
14 provide?

15 Q. (BY MR. STONE) 2652 divided by 2 million.

16 A. .1326.

17 Q. And that's percent. Right?

18 A. Yes.

19 Q. So it's 1/10 -- between 1/10th and 2/10ths of one
20 percent. Correct?

21 A. Yes.

22 Q. Okay. Now, you mentioned again in your redirect
23 testimony the Wells Fargo consent decree. Do you remember
24 that? Okay. I thought I heard you mention it. Let me ask
25 you about it.

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(Redacted.)

1 provides an independent basis on which to calculate the
2 portion of value attributable to the four patents asserted in
3 this case.

4 A. I guess that's -- it's possible to use the impact based
5 on before and after adoption of that to -- which I've done, to
6 show you error rates that could impact the value.

7 Q. If you would, take a look at your report, which is in the
8 binder.

9 A. Sure.

10 Q. And go to page 259, if you would. If I said 'page', I
11 meant 'paragraph'.

12 A. I was about to ask you.

13 Q. My apologies, Mr. Kennedy.

14 A. Yes.

15 Q. Okay.

16 A. I'm there.

17 Q. Okay. And in your report, you said that version 4.20.1
18 -- well, let me ask it differently. Let me just go to the
19 question I asked you before. I just meant to refresh your
20 recollection.

21 You would agree, wouldn't you, that version 4.20.1
22 provides an independent basis to calculate the portion of
23 value attributable to the four patents asserted in this case?

24 A. Yes.

25 Q. Now, USAA ranks its competitors in terms of who they

1 think is the most significant competitor or who's less
2 competitive with them and so on. Correct?

3 A. Yes.

4 Q. And throughout the period of time relevant here, USAA has
5 always considered Wells Fargo to be a much more significant
6 competitor than PNC. Correct?

7 A. I think Wells Fargo was number one on a couple of lists I
8 saw, and PNC was maybe four, five. So I think -- yeah, they
9 were both on the list, but I believe Wells Fargo was higher on
10 the list.

11 Q. And that's true for all the competitive analyses that
12 USAA prepared that you've reviewed for this case--Wells Fargo
13 was always ranked higher, according to USAA's analysis, than
14 PNC Bank. Correct?

15 A. Yeah. I can't think of one where -- all I can think of
16 is where Wells Fargo was at the top of the list. If there's
17 others, I don't recall any others showing them further down.

18 Q. Thank you.

19 MR. STONE: No further questions. Pass the witness.

20 THE COURT: Is there further direct?

21 MR. BUNT: Yes, Your Honor.

22 THE COURT: Please proceed.

23 REDIRECT EXAMINATION

24 BY MR. BUNT:

25 Q. In analyzing whether 4.20.1 is a way of looking at

1 damages, do you also have to take into account whether 4.20.1
2 infringes other patents?

3 A. Yes.

4 Q. And are the patent damages -- those are established by
5 the use made of the invention by the infringer. Is that
6 correct?

7 A. That's correct.

8 Q. And would that be PNC in this case?

9 A. Yes.

10 Q. Thank you, sir.

11 MR. BUNT: I'll pass the witness.

12 THE COURT: Anything further, Mr. Stone?

13 MR. STONE: No further questions, Your Honor. Thank
14 you.

15 THE COURT: All right. You may step down,
16 Mr. Kennedy.

17 THE WITNESS: Thank you, Your Honor.

18 THE COURT: You're welcome.

19 Plaintiff, call your next witness.

20 MR. SHEASBY: Your Honor, at this time USAA rests
21 its case in chief.

22 THE COURT: All right. Plaintiff has rested its
23 case in chief, ladies and gentlemen. This is the juncture
24 where we will turn to the Defendant's case in chief. But
25 before we do that, we're going to break for lunch. I'm told

1 by Ms. Clendening that lunch is on its way to you.

2 Please take your notebooks with you over the lunch break
3 to the jury room. Please follow all my instructions,
4 including not to discuss the case among each other. It is
5 about 20 minutes until 12:00, and we'll try to reconvene
6 somewhere in the neighborhood of 45 minutes from now.

7 But with those instructions, the jury's excused for
8 lunch.

9 (Whereupon, the jury left the courtroom.)

10 THE COURT: Counsel, I'd like you to take 20 minutes
11 and then meet me in chambers and we'll go over any outstanding
12 overnight disputes that have not been addressed so that we can
13 move smoothly through the following witnesses after lunch.

14 With that, we stand in recess.

15 (Lunch recess.)

16 THE COURT: Be seated, please.

17 Mr. Bunt, do you and Ms. Smith have something you want to
18 clarify in the record?

19 MR. BUNT: Yes, Your Honor. USAA has no objection
20 to the list of exhibits recited by Ms. Smith this morning.

21 THE COURT: All right. Let the record so reflect.

22 Counsel, for your information, as of right now according
23 to the records I have before me, the Plaintiff has used 6
24 hours, 5 minutes and 37 seconds of their designated trial
25 time, and they have 5 hours, 54 and a half minutes left.

1 Defendants -- Defendant has used 5 hours and 57 and a
2 half minutes, which leaves them 6 hours and 2 and a half
3 minutes.

4 All right. Is there anything else the parties are aware
5 of that needs to be raised with the Court before we bring in
6 the jury and proceed to take on Defendant's case in chief and
7 their first witness?

8 MR. STONE: Not from the Defendant, Your Honor.

9 MR. SHEASBY: Not from Plaintiff, Your Honor.

10 THE COURT: All right. Ms. Smith, is this your
11 witness?

12 MS. SMITH: It is, Your Honor.

13 THE COURT: All right. Why don't you take the
14 opportunity to go to the podium and get ready. And please
15 turn the sheets on the chart over to a clean sheet.

16 MS. SMITH: Of course, Your Honor.

17 THE COURT: And why don't you bring in the jury,
18 please, Mr. Nixon.

19 (Whereupon, the jury entered the courtroom.)

20 THE COURT: Welcome back from lunch, ladies and
21 gentlemen. Please have a seat.

22 As you heard when we broke for lunch, Plaintiff has
23 rested their case in chief. We'll proceed with the
24 Defendant's case in chief.

25 Defendant, call your first witness.

1 MS. SMITH: Thank you, Your Honor. PNC calls Ms.
2 Karen Larrimer.

3 THE COURT: All right. Ms. Larrimer, if you will be
4 sworn by our Courtroom Deputy.

5 (Whereupon, the oath was administered by the Clerk.)

6 THE COURT: Please have a seat on the witness stand.

7 MS. SMITH: May it please the Court.

8 THE COURT: Please proceed, counsel.

9 MS. SMITH: Thank you.

10 KAREN LARRIMER, SWORN,

11 testified on direct examination by Ms. Smith as follows:

12 Q. Ms. Larrimer, if you would introduce yourself to the
13 jurors, please.

14 A. Sure. Good afternoon. My name is Karen Larrimer.

15 Q. And, Ms. Larrimer, where are you currently employed?

16 A. I am employed with PNC Bank.

17 Q. And what's your role at PNC Bank?

18 A. My current role is I am the head of retail banking, and I
19 am the company's chief customer officer.

20 Q. Now, Ms. Larrimer, how did PNC first learn that USAA was
21 accusing PNC of infringing USAA's patents?

22 A. We learned because we were sued.

23 Q. And what was your reaction?

24 A. I was surprised when the lawsuit came in, and I was
25 disappointed that we had not had the opportunity to be

1 informed in advance and sit down and have a discussion about
2 the topic.

3 Q. You said you had not had the opportunity. Prior to USAA
4 filing this lawsuit, did they ever -- did USAA ever contact
5 PNC to inform PNC that it believed that PNC was using its
6 patents?

7 A. They did not.

8 Q. Did PNC ever receive a letter prior to this lawsuit
9 listing USAA's patents?

10 A. They did not. We did not.

11 Q. Okay. About how long had PNC been offering its own
12 mobile deposit app to customers before USAA sued?

13 A. We rolled out our mobile deposit app in 2011, so almost
14 10 years of having the product in usage before we heard that
15 they were suing us.

16 Q. And, Ms. Larrimer, has anyone -- have you heard anyone in
17 this case dispute that decade period?

18 A. No, I have not heard that.

19 Q. Now, shifting your attention to after the lawsuit, what
20 did PNC do after the lawsuit was filed?

21 A. When we knew about the lawsuit, we looked at the patents
22 that they were accusing us of infringing, and we removed the
23 features that were being accused.

24 Q. So is USAA seeking any damages at all in this case for
25 mobile deposits made using the current PNC mobile deposit app

1 that doesn't have those features?

2 MS. GLASSER: Objection, Your Honor. Request a
3 sidebar.

4 THE COURT: Approach the bench, counsel.

5 (The following was had outside the hearing of the
6 jury.)

7 THE COURT: What's the objection?

8 MS. GLASSER: We are, of course, requesting damages
9 in the other case. And so the question as phrased would
10 either call for an answer that's false or an answer that would
11 require her to go into the second case.

12 MS. SMITH: I believe my question was in this case.

13 THE COURT: Well, I haven't heard anything that
14 rises to the level of a substantive objection. Defense
15 counsel is entitled to ask a question the way she wants to
16 unless it violates some ruling of the Court.

17 MS. GLASSER: I'll correct. There's a MIL --

18 THE COURT: You can address it on cross.

19 MS. GLASSER: And, I'm sorry, there's a MIL
20 excluding evidence reference to the second case, to PNC 3.

21 MS. SMITH: And, again, Your Honor, my question was
22 in this case.

23 THE COURT: All right. Then I'll overrule the
24 objection. Make it clear as you restate your question it's
25 limited to this case.

1 MS. SMITH: Of course.

2 THE COURT: All right.

3 (The following was had in the presence and hearing
4 of the jury.)

5 THE COURT: The objection is overruled.

6 Restate the question, please, counsel.

7 MS. SMITH: Thank you, Your Honor.

8 Q. (BY MS. SMITH) Ms. Larrimer, is USAA seeking any damages
9 in this case from mobile deposits made using that current
10 version of PNC's mobile app that you just described that
11 doesn't have the accused features?

12 A. They are not.

13 Q. What would PNC have done had USAA notified PNC about its
14 allegations earlier?

15 A. We would have done what we did when we got the lawsuit,
16 which is we would have removed the features that they were
17 accusing us of.

18 Q. Would that have been true had you gotten notice two years
19 ago or three years ago?

20 A. Yes. It could have been true at any point along those
21 10 -- 10 years.

22 Q. So what impacts is there since USAA waited to tell PNC
23 that it thinks PNC infringes?

24 A. You know, listening to Mr. Kennedy, I would say that the
25 impact is the claim of more damages. So over a longer period

1 of time, they sat back and waited and then could claim all
2 these years of damages. That's my opinion.

3 Q. Okay. Now, we're going to stop here, Ms. Larrimer, and
4 I'm going to allow you to introduce yourself more fully to the
5 jurors. If you would tell the jury a little bit more about
6 your background.

7 A. Sure. I'm from Pittsburgh, Pennsylvania, and I reside
8 there. I'm born and raised there. I live with my husband,
9 and I have four children. My youngest two are 12, and they
10 are twins that we adopted. I have a 16-year-old and I have,
11 believe it or not, a 30 plus-year-old who's married and made
12 me a grandma last year.

13 Q. How long have you worked at PNC?

14 A. I joined PNC in 1995.

15 Q. How did you go about getting involved in banking back in
16 1995?

17 A. Well, actually way before that. So my whole career has
18 been in banking, and I started out as a secretary, actually a
19 part-time secretary, and I was working my way through college,
20 and then got offered a full time position. And I've stayed in
21 banking ever since.

22 Q. So did you go from part-time secretary to chief customer
23 officer?

24 A. Oh, no.

25 Q. Okay.

1 A. However many years I've been working, almost 40 years,
2 I -- I took the slow road. I did many, many jobs in banking
3 working with our customers and just continued to take on more
4 responsibility and fortunately worked for a company that gave
5 me the opportunity to keep learning and growing. And I
6 eventually landed in the job that I am in today.

7 Q. Okay. Now, in speaking about the job you're in today,
8 you said you are currently the head of the retail bank. If
9 you could explain to the jurors what that means.

10 A. Sure. The head of retail banking -- so retail banking
11 serves consumer customers like you or I with our basic banking
12 needs, checking, lending, things you would think about. And
13 we also serve small business customers. So that's how we
14 define it at PNC Bank.

15 Q. You also have a second title. Is that correct?

16 A. I do. Chief customer officer.

17 Q. And what are your primary responsibilities under that
18 hat, the chief customer officer?

19 A. As chief customer officer, my responsibility is to be the
20 advocate for our customers at PNC.

21 Q. And how long have you been chief customer officer?

22 A. You're stretching my memory. 2014.

23 Q. At that time back in 2014, did other banks have chief
24 customer officers?

25 A. I was not aware of any other bank that had a chief

1 customer officer. Companies like Disney did but not banking.

2 Q. How about now? Do other banks today have chief customer
3 officers?

4 A. Yes. It's become a much popular role across corporate
5 America and within banking.

6 Q. Now, Ms. Larrimer, as both the head of retail bank and
7 also the chief customer officer, how many employees report up
8 to you?

9 A. Over 30,000 employees are in the retail bank.

10 Q. And who do you directly report to?

11 A. I directly report to our CEO, Mr. Bill Demchak.

12 Q. With 30,000 employees reporting up to you and you
13 directly reporting to the CEO, why did you choose to travel
14 here for trial?

15 A. This is obviously a very important case to PNC, and I
16 wanted to be able to share with the jury the truth about who
17 PNC is.

18 Q. And have you ever testified in a trial before?

19 A. No. I've never been in this position, no.

20 Q. Okay. Now, Ms. Larrimer, you've helped me out by helping
21 prepare some slides to illustrate some of your testimony
22 today. Is that correct?

23 A. I did, just a couple.

24 Q. Okay.

25 MS. SMITH: And I think, Mr. Nickels, if you can

1 bring up those slides, please.

2 Q. (BY MS. SMITH) All right. When was PNC founded, Ms.
3 Larrimer?

4 A. PNC was founded in 1852, so we're -- been around a long
5 time.

6 Q. And where was PNC founded?

7 A. In Pittsburgh, Pennsylvania, and that is still where it
8 is headquartered as a corporation.

9 Q. Now, you say it's still headquartered in Pittsburgh,
10 Pennsylvania. Does it also serve other regions around the
11 nation today?

12 A. Yes. Today we are, what I call, a coast-to-coast bank.
13 So we have operations across the entire country and, as noted
14 on the slide that I did, 27 major metropolitan cities. So the
15 biggest cities in America and all the surrounding communities
16 around them.

17 Q. And that includes Texas?

18 A. Yes. We now have 340 branches in Texas, and I got to see
19 the one that's right here in Marshall. And I know that we
20 have them in surrounding communities like Tyler and others
21 very close by.

22 Q. Now, Ms. Larrimer, if you could, explain to the jurors
23 the different ways that a customer can conduct banking
24 transactions at PNC.

25 A. Yes. Obviously the branch. We have about 2600 branches

1 across the country. ATMs. We're the fourth largest ATM
2 network and 8500 ATMs across the country we own. Obviously
3 online banking, mobile banking, and we have multiple care
4 centers, we call them -- they're call centers, that customers
5 can call in and transact business with us as well. So lots of
6 ways to do business.

7 Q. Now, does PNC encourage customers to use one way over
8 another way?

9 A. We want our customers to bank with us how, when, and
10 where they choose. And I would tell you that most customers
11 use more than one channel for whatever their need is.

12 Q. Now, we've talked about PNC having branches across the
13 country. How many branches does PNC have?

14 A. Right now we have about 2600 branches.

15 Q. And how many ATMs did you say PNC had?

16 A. PNC owns about 8500.

17 Q. Okay.

18 MS. SMITH: Now, if we could turn to the next slide,
19 slide 3, Mr. Nickels. Thank you.

20 Q. (BY MS. SMITH) What do we see here, Ms. Larrimer?

21 A. Yes. What I did is build a timeline of remote deposit
22 and how it came to life at PNC.

23 Q. Now, over here on the left, the first thing I see in the
24 timeline, it says Check 21 becomes effective.

25 A. Uh-huh.

1 Q. What's Check 21?

2 A. So Check 21 is a very important law that changed banking.
3 It allowed for the electronification of checks. So you can
4 probably all relate to receiving checks in the mail with your
5 statement every month, and now they come in the form of
6 electronic images. So it allowed us to make those photos of
7 checks and use those instead of the actual physical checks.
8 And that was back in 2004.

9 Q. Was there any -- any specific events that created the
10 need for Check 21?

11 A. Yeah. It's pretty interesting because it happened as a
12 result of 9/11. If you recall when 9/11 happened, planes were
13 grounded. So the way that the banking system transported
14 checks around, I call them planes, trains, and automobiles,
15 but they used planes to move the checks across the country.
16 And when everything became grounded as part of 9/11, the
17 checks were in a standstill.

18 So Congress acted on that and created this method that we
19 can now move our checks across the country wherever they need
20 to go in electronic form. And that's really what changed the
21 industry and enabled everything that we've been here talking
22 about.

23 Q. Now, you're talking about how you moved checks across the
24 country. How did Check 21 impact the cost of handling check
25 deposits specifically at PNC?

1 A. Sure. So Check 21 is what gave us the savings due to
2 electronification in that those transportation costs were
3 huge. Imagine flying planes with checks in them. That was a
4 huge cost. That was able to come out.

5 And then also we had big equipment in our back office,
6 reader/sorters that sorted the checks, and we were able to get
7 rid of those over time because checks have gone way, way down.

8 Q. Was PNC able to provide any -- any new products or
9 services to customers as a result of this Check 21?

10 A. Sure, we were. So taking checks through an ATM, teller
11 scanners, scanners in business offices, and of course remote
12 deposit which we're here talking about over these last few
13 days.

14 Q. Now, Ms. Larrimer, I'm going to direct your attention to
15 the second -- the second step on your timeline here. I see it
16 says deposit on-site. What was that?

17 A. So back in 2005, our large corporate part of the bank, so
18 the bank that calls on large companies, created -- well,
19 bought deposit on-site from a vendor. And that's one of the
20 systems where we gave the corporations scanners on their
21 desktop and they were able to scan checks through and then
22 remotely deposit them. So they would send us a file that we
23 could apply to their account. They didn't any longer have to
24 come to a branch to make a deposit.

25 Q. Now, looking at the next step, we see something called

1 DepositNow, BankServ. Do you see that, Ms. Larrimer?

2 A. Yes.

3 Q. And how did that work?

4 A. So DepositNow is the same concept of using a scanner, but
5 we took it to small business customers. It was a huge
6 convenience benefit that they no longer had to leave their
7 small business during the day and come stand in line at a
8 branch; they can make the deposits from their office.

9 And you can see on here that we started to pilot that
10 back in July of 2006, and then we rolled it out in January of
11 2007. And we were the very first bank to offer that to small
12 business customers through BankServ.

13 Q. Well, how did -- were you personally involved in making
14 DepositNow a new product at PNC?

15 A. I was. I was in the small business group as one of those
16 many jobs I did over the years, and I was really excited when
17 BankServ came and approached me and told me about the
18 technology. And really from the convenience factor, small
19 businesses have a hard time leaving their business during the
20 day, so I saw this as a really nice product to offer for them.

21 THE COURT: Ms. Larrimer, can you slow down a little
22 bit?

23 THE WITNESS: Oh, I sure can.

24 THE COURT: I know this is your first time in court,
25 but it's important that not only everybody hear and understand

1 you but that we get a clear record of your testimony in the
2 transcript. So please slow down, if you will.

3 THE WITNESS: Yes, sir.

4 THE COURT: No problem. Thank you.

5 Ms. Smith, please continue.

6 MS. SMITH: Thank you, Your Honor.

7 Q. (BY MS. SMITH) Now, Ms. Larrimer, how many other banks
8 was BankServ providing this -- this DepositNow solution to?

9 A. None at the time they brought it to us. We were the
10 first.

11 Q. Now, does PNC offer a mobile app to its individual
12 customers? We've talked about the larger businesses and the
13 smaller businesses. Is there something for the individual as
14 well?

15 A. Yes. In June of 2009, we rolled out our mobile app.

16 Q. And how does mobile banking for an individual customer
17 fit into PNC's business model?

18 A. I view it as a channel that customers can use. So I
19 talked about branches, care center, call center, ATMs, online
20 mobile. So our mobile app is one channel that a customer can
21 use to do business with us.

22 Q. Okay. And when an individual's doing business, can they
23 use PNC's app to deposit remote checks?

24 A. They can now. So as of April 2011, as you can see on the
25 timeline, we added mobile deposit capability onto our app, and

1 we did that with the company I mentioned, BankServ, and also
2 another company, mFoundry, who brought that solution to us.

3 Q. What technology did BankServ provide for mobile deposit?

4 A. They provided the full capability. So I call them off
5 the shelf. So when a vendor comes to you with an
6 off-the-shelf product, that's already built. And then what we
7 did was integrate it into our system so that our customers
8 could see and use it. But they brought the whole package to
9 us.

10 Q. Now, does PNC still use BankServ today?

11 A. BankServ has been bought by other companies. Today we
12 use a company called NCR.

13 Q. And what does NCR charge PNC for mobile deposit services?

14 A. They're all-in price to us for a remote deposit is 12
15 cents per deposit.

16 Q. And what does PNC get in exchange for that 12 cents per
17 deposit?

18 A. The complete capability. So the software on the front
19 end, the software on the back end, all the maintenance and
20 servicing, the license. Everything is one package for 12
21 cents per deposit.

22 Q. Now, you mentioned a minute ago and we got a little bit
23 ahead of ourselves, you mentioned a feature called
24 auto-capture, which we've heard a lot about in this trial. Do
25 you recall that testimony?

1 A. I can't recall that I mentioned auto-capture, but I'm
2 very familiar with auto-capture.

3 Q. Okay. And you've heard some testimony in court about
4 auto-capture.

5 A. I did.

6 Q. Did PNC ever add auto-capture to its mobile deposit
7 system?

8 A. Yes, we did, in 2016.

9 Q. And does PNC offer auto-capture today?

10 A. We do not. That is a feature we removed when the lawsuit
11 came in.

12 Q. Now, Ms. Larrimer, you heard throughout this trial a
13 little bit about an American Banker article. Is that correct?

14 A. I did, yes.

15 Q. Okay.

16 MS. SMITH: Mr. Nickels, if I could show Ms.
17 Larrimer DX 1419, please.

18 Q. (BY MS. SMITH) Are you able to see that article, Ms.
19 Larrimer?

20 A. Yes, I can.

21 Q. And what is this?

22 A. It is an article where -- it says USAA wants the bank or
23 banks to pay it for remote deposit capture, and you can see it
24 was in the American Banker if you look at the one that's not
25 blown up.

1 Q. And does the article discuss USAA sending out letters to
2 banks about its patents?

3 A. That is what the letter is about, that they wanted to
4 reach out to banks and sit down with them and talk about
5 licensing their product. So that's what the article talks
6 about.

7 Q. And was PNC on the receiving end of one of these letters
8 they're talking about?

9 A. We never received a letter, no.

10 MS. SMITH: Mr. Nickels, if you could turn to page 6
11 for me, please. We're going to take a look at that second
12 paragraph on page 6. It should say, For its part.

13 Thank you, sir.

14 Q. (BY MS. SMITH) Now, can you see that on the screen, Ms.
15 Larrimer?

16 A. I can.

17 Q. Okay. I see where it says, "For its part, USAA will take
18 as long as we need to resolve the issue without involving the
19 court system, Hudson said."

20 Did USAA ever, prior to this lawsuit, attempt to resolve
21 matters, as Mr. Hudson suggests here, prior to filing this
22 lawsuit?

23 A. With PNC, they did not. So prior to receiving a lawsuit,
24 we did not hear from them.

25 Q. Okay. And, Ms. Larrimer, does this article identify

1 any -- any specific USAA patents in it?

2 A. I don't believe it does.

3 Q. Now, do you know if PNC did anything in response to this
4 article?

5 A. I'm not exactly sure that we did.

6 Q. Okay.

7 MS. SMITH: Mr. Nickels, if I could show Ms.
8 Larrimer Defendant's Exhibit 692, please.

9 Q. (BY MS. SMITH) Does this look familiar, Ms. Larrimer?

10 A. Yes.

11 Q. Okay. What are we looking at? What's the jury looking
12 at right here?

13 A. Yes. So this is an internal email, and we -- well, what
14 the team did is they reached out to -- if you recall, I said
15 that NCR is our vendor currently. So when they saw this
16 article pop up about USAA, they reached out to our vendor,
17 NCR, to get their understanding if there was any concern about
18 the USAA licensing article that was out there.

19 And NCR responded they stand behind their solution and
20 they did not see any issue with what they were providing us as
21 it related to USAA.

22 Q. Okay. Now, Ms. Larrimer, you've been here each day of
23 the trial. Correct? Sitting -- sitting next to me?

24 A. I have been right there, yes.

25 Q. Okay. You were here for the testimony of Mr. Wilkinson.

1 Correct?

2 A. Yes, I was.

3 Q. What did Mr. Wilkinson say about the banking industry's
4 use of software from third-party vendors?

5 A. That it's very commonplace that all of the banks use
6 software from third parties.

7 Q. And did Mr. Wilkinson testify that USAA itself uses
8 third-party software?

9 A. Yes, he did say that.

10 MS. SMITH: Now, Mr. Nickels, if we could go back to
11 the slides, please. Page 4, please. Thank you.

12 Q. (BY MS. SMITH) Ms. Larrimer, is this another slide you
13 put together to aid the jury today?

14 A. Yes, I did.

15 Q. Okay. In this case we're talking about a technology for
16 depositing checks. What's happened to check usage over the
17 years?

18 A. Check usage has declined dramatically. I can tell you
19 that five years ago, it was about 25 percent of all deposits.
20 It's now 15 percent. So that just kind of gives you the
21 magnitude of change and how fast it's coming down that people
22 just don't write a lot of checks anymore.

23 Q. Okay. Now, for those -- for the small number of PNC
24 customers you mentioned who still are getting checks, what are
25 the different ways that they can deposit a check into their

1 PNC account?

2 A. Sure. They can come into our branch and deposit a check
3 with a teller. They can use our ATMs, which is the most
4 popular way to deposit checks. They can use the remote
5 deposit capability on their phones as well.

6 Q. Now, approximately how many PNC customers use mobile
7 deposit?

8 A. Nine percent of our customers use remote deposit today.

9 Q. Okay. And of that nine percent of your customers, how
10 many mobile deposits do the customers make per month?

11 A. So monthly numbers fluctuate, but it's two, two and a
12 half million per month that that nine percent of customers use
13 in depositing checks.

14 Q. Has mobile deposit stopped growing since PNC removed
15 those two features at issue in this case?

16 A. It has not stopped growing, and that is with our existing
17 customer base. Excluding any acquisitions, our existing
18 customer base has continued to grow.

19 Q. How important is mobile deposit to PNC?

20 A. You know, anything we can offer to our customers that's a
21 convenience, you know, we want to do that for our customers.
22 So I would say for these nine percent of customers that --
23 that use it, that tell me they use it and like it, use it
24 repeatedly. So that is a nice benefit to provide the
25 customers.

1 But, overall, if you look at our business and what we do
2 for customers, it is not, you know, overall critical to PNC
3 Bank. It's just one service out of many that we offer to
4 customers.

5 Q. And, Ms. Larrimer, in your experience might it be overall
6 critical to a -- to a bank that had perhaps fewer branches?

7 A. Yes, of course. We have a vast branch network across the
8 country, 2600, and then all these ATMs. If a bank does not
9 have branches, mobile remote deposit becomes a critical part
10 of their business model. And, you know, similar to USAA, that
11 would be an important part of the business model, I would
12 think.

13 Q. Now, Ms. Larrimer, we have heard -- we've heard a lot of
14 talk from USAA about its military members being on ships and
15 being -- and at war and using remote deposit to deposit their
16 checks. Were you here for some of that testimony?

17 A. I did hear some of that, yes.

18 Q. And we certainly -- I apologize, ma'am. We certainly
19 heard it in Mr. Sheasby's opening statement, did we not?

20 A. Yes.

21 Q. Okay. Does PNC also have military customers that bank at
22 PNC?

23 A. We do have some, yes.

24 Q. When you say some, can you tell me a ballpark on how
25 many?

1 A. Yeah. It's roughly around 33,000 military members.

2 Q. And how do those military members, regardless of if
3 they're across the street in Marshall or in far-flung places,
4 out on a ship, how do they deposit their checks at PNC?

5 A. Their paychecks are deposited with direct deposit. They
6 don't receive checks. They're required to get direct deposit
7 of paycheck.

8 Q. And that's not specific to PNC. Correct?

9 A. That would be my understanding, not just specific to us.

10 Q. Now, how does PNC market mobile deposit to consumers?

11 A. We generally don't. We market our checking accounts, and
12 mobile deposit would be one of many, many features that we
13 offer to checking account customers. So we tend to not pull
14 out features.

15 The one time I can remember that we did was during -- I
16 was going to say 9/11, but it was during COVID. So during
17 COVID when people maybe didn't want to leave their house and
18 wanted to deposit a check, we did put it in some of our
19 advertisements during that time. But, generally, it's not
20 something we advertise.

21 Q. What about charging customers? How does PNC charge
22 customers to use mobile deposit?

23 A. There is no charge for using mobile deposit, none at all.

24 Q. How does PNC market other products or other services to
25 customers while they're in their app using the mobile deposit?

1 A. In the mobile deposit app, there is no advertising,
2 nothing pops up, and we don't try and promote something else
3 in that part of the app.

4 Q. Now, Ms. Larrimer, in your role as chief customer officer
5 and as well as head of retail bank, do you have an occasion to
6 look at why customers choose to bank with PNC?

7 A. Yes, I absolutely do.

8 Q. And why do customers choose PNC?

9 A. So in all the years that I've been doing this, we've done
10 many, many surveys about why consumers choose to bank with us,
11 and the branch has always been at the top of the list as to
12 the consideration to bank. And they -- that's even for
13 customers who may not frequent a branch a lot, they like to
14 know that the physical brick and mortar is there, it's a real
15 brand.

16 Over the years I've seen -- so fees are important.

17 The other thing I've seen rise to the top is security.
18 So they want to know that they're dealing with a secure bank.

19 And then online banking has risen as well over the years.
20 So those would be the key reasons that I recall.

21 Q. And we heard Mr. Kennedy testify earlier that he went
22 into a bank branch to do his banking yesterday. Did you hear
23 that testimony?

24 A. I did hear that, yes.

25 Q. And you have many customers just like Mr. Kennedy that

1 prefer the branch banking still?

2 A. Absolutely. They call us their family.

3 Q. Okay. All right. Well, if they call you your family,
4 why do they stick with PNC?

5 A. Because we are family.

6 Q. All right.

7 A. We are the family. Yes, it's the relationship. So most
8 customers form a relationship with a bank and tend to stick
9 with it. And then there are services, and the top one would
10 be bill pay. Customers input their bills into online banking,
11 and that is what I call very sticky, meaning it would be a lot
12 of work for them to go somewhere else and re-input all those
13 bills. So -- but they enjoy the relationship with PNC.

14 Q. Now, what does your experience tell you about the impact
15 of a feature like -- like mobile deposit on both attracting
16 and keeping the customers?

17 A. Mobile deposit as a feature would not be something that
18 would show up as a reason alone to select a bank or to stay
19 with a bank.

20 Q. Now, remote deposit generally, how important is the
21 specific auto-capture feature that's being accused in this
22 case to PNC's business?

23 A. It's not important at all. We removed it, and customers
24 are continuing to use the service as they did before.

25 Q. Same question about showing a customer a picture of a

1 check. How important is it to show a picture of a check to a
2 customer before it's deposited? How important is that to
3 PNC's business?

4 A. It's not important at all. You think about it as it's an
5 add-on feature within a feature, and we removed it and
6 customers are still using the service. So I think that shows
7 it was not important to them.

8 Q. Okay. Now, we talked about Mr. Kennedy's testimony.
9 Were you here when Mr. Kennedy testified that PNC
10 accounts--see if I can get this right--that use mobile deposit
11 are more profitable than accounts that don't. Did you hear
12 that testimony?

13 A. I did hear that, yes.

14 Q. Do you agree or disagree with that testimony?

15 A. I disagree.

16 Q. Why?

17 A. The accounts he was looking at were more profitable
18 because of things like -- actually the -- the fees. Debit
19 card, which has been around for many, many years, and other
20 fees that are charged to customers for services that they use
21 and enjoy, and that's what makes them profitable. We don't
22 charge for mobile remote deposit. It doesn't show up as a
23 factor in the profitability.

24 Q. Okay. Now, we also heard from Mr. Kennedy that mobile
25 remote check deposit brings these cross-selling opportunities.

1 I think that's how he termed it. Do you agree with that?

2 A. I do not.

3 Q. Why not?

4 A. Because I -- I don't see that happening, again that that
5 feature has caused anyone else to buy anything else at the
6 bank because of it.

7 Q. Now, in what channel, whether it be branch, ATM, or
8 digital, does PNC make most of its sales?

9 A. By far the branch. 70 to 80 percent of the sales are
10 made in the branch which makes the branch critical to our
11 business model.

12 Q. Now, Mr. Kennedy talked about mobile check deposit
13 allowing PNC to close branches. Did you hear that testimony?

14 A. I did hear that.

15 Q. Do you agree that mobile remote check deposit has allowed
16 PNC to close branches?

17 A. I absolutely disagree.

18 Q. Why not?

19 A. So I stated before, nine percent of our checking accounts
20 use mobile remote deposit. Those are not customers who all
21 use one or two branches. I mean, they're spread across
22 America.

23 Our fixed infrastructure of our branch exists, and
24 tellers are in there, and I have to pay tellers to be in
25 there, and they could take on that excess -- the remote

1 deposits into the branch. So there is no rationale, and we
2 make branch decisions all the time, that would say we can
3 close this branch or we ever did close a branch because of
4 remote deposit. It just -- it just is not real.

5 Q. Well, you talk about making decisions to close branches.
6 What kinds of factors has PNC considered when closing
7 branches?

8 A. Yeah. So it's quite a process we go through to determine
9 if we would ever close a branch. The major reason we have
10 closed branches when you see a chart that shows our branches
11 going down have been because of integrations.

12 And when I say integration, I mean that we purchased
13 another bank and that bank had branches that overlapped in our
14 geographies, very much cases of PNC on one side and the bank
15 we acquired on the other side of the street. No business
16 model would keep those branches open. So we had decisions to
17 make to eliminate those branches, and we did throughout the
18 years, and we've done many acquisitions.

19 And then we look at a lot of factors. We have
20 commitments to communities. We understand that commitment in
21 the community. We look at the growth in the community, what's
22 happening, whether we have ATMs there. I mean, there's so
23 many factors that go into deciding the closure of any single
24 branch.

25 Q. Now, Ms. Larrimer, do all of the transactions that happen

1 in a branch take the same amount of time for a teller to
2 process?

3 A. Absolutely not.

4 Q. How long does it take a teller to process a check
5 deposit?

6 A. So we put the scanner technology in at the teller
7 station, and it takes less than one minute to complete the
8 transaction with a customer.

9 Q. And approximately what percent of transactions in a
10 branch are check deposits?

11 A. About 20 percent.

12 Q. Now, if PNC reduced the number of check deposits
13 happening in a branch, how would that impact the costs of
14 operating that branch?

15 A. If they decreased the amount of check deposits?

16 Q. Yes, ma'am.

17 A. It wouldn't because there's the fixed infrastructure of
18 having a branch. Having the building, having people in there,
19 you have to staff it. A deposit coming in isn't going to make
20 a difference on that branch.

21 Q. Okay. Now, did you hear Mr. Kennedy also talk about cost
22 savings that PNC receives from mobile deposit generally? Did
23 you hear that testimony?

24 A. Yes, I did.

25 Q. Now, if it's less expensive to process a check deposit

1 through the mobile channel compared to say a branch or an ATM,
2 how can PNC get those savings without showing a picture of the
3 check to the customer when they're using the mobile app?

4 A. Showing a picture of a check to a customer doesn't mean
5 anything, so it doesn't change any of those savings.

6 Q. Well, how does the removal of auto-capture impact those
7 savings you get with the use of a mobile channel rather than a
8 branch?

9 A. Same answer. It would have no impact. We removed those
10 features and it doesn't have an impact.

11 Q. Now, Ms. Larrimer, can you remind the jury of when PNC
12 rolled out the version of its app that removed the two accused
13 features in this case?

14 A. Sure. We began rolling it out in May 2021, and by the
15 end of July 2021, all customers were on the new service.

16 MS. SMITH: Mr. Nickels, if I could see slide 5,
17 please.

18 Q. (BY MS. SMITH) Ms. Larrimer, what features did PNC
19 remove in the version called, we've heard a lot about it,
20 4.20.1?

21 A. Yes, that's correct.

22 Q. Which features were removed?

23 A. The showing the customer the photo of the check and the
24 auto-capture feature.

25 Q. And how long did it take PNC to remove those features?

1 A. It took about 10 weeks.

2 Q. And how much did it cost to remove those features?

3 A. Roughly \$350,000.

4 Q. Now, Ms. Larrimer, you testified that PNC would have done
5 the same thing had they gotten notice earlier.

6 A. Yes.

7 Q. Would it have been feasible to make those changes, say,
8 back in 2016?

9 A. Yes, definitely.

10 Q. Okay. Why didn't PNC make the changes earlier?

11 A. We had absolutely no idea we were going to be accused of
12 infringing anything. We did not believe or know anything at
13 that time. And then when they did the American Banker article
14 and said they would be reaching out to banks that they thought
15 were infringing. They didn't reach out to us which further
16 made us feel we had no problems.

17 Q. Now, it's been almost a year. Correct? Since version
18 4.20.1 was released?

19 A. Yes, correct.

20 Q. Okay. Have customers responded to the changes?

21 A. I would say that any time a change is made, you see a
22 blip of customers calling in with questions and concerns
23 because it's change and human nature is change is difficult.
24 So we did see when we launched it a blip-up in customers
25 complaining. And that has all normalized back down after a

1 couple of months, and we've continued to grow.

2 Q. You say it's normalized back down. Have customers been
3 leaving the bank because of the new version that's been
4 introduced?

5 A. No, we have not seen customers leaving the bank. Our
6 retention remains -- retention means keeping the customers
7 best in class in the industry, and it's just actually
8 continued to get better.

9 Q. And how do you -- how do you measure whether customers
10 are staying or leaving?

11 A. That is something I look at every single month where I
12 look at the number of, I call it, net customers. So how many
13 customers did we acquire, how many customers did we lose, what
14 was the net growth to our business, and I look at that in a
15 lot of detail to understand what customers are doing.

16 Q. And when you look at that growth, you're looking at
17 accounts, number of accounts?

18 A. Oh, yes, checking accounts.

19 Q. What happened to the number of PNC checking accounts
20 after these changes -- after you took out the features that
21 USAA is accusing?

22 A. We continued to grow checking accounts.

23 Q. Okay. Do you also keep tabs on what's happening and
24 specifically the mobile channel with deposits?

25 A. Yes.

1 Q. Okay. What happened to mobile deposit usage after
2 version 4.20.1 was introduced?

3 A. Mobile deposit usage continued to grow.

4 Q. Okay. Now, Ms. Larrimer, we've heard some suggestion
5 that customers have complained and have grown increasingly
6 dissatisfied over time and they may eventually leave PNC.

7 Do you agree or disagree with that?

8 A. Because of these changes? I would strongly disagree.

9 Q. What plans does PNC have in place right now to add the
10 features it removed, those two features, to add those back
11 into its mobile deposit system?

12 A. We have no plans to add that back in.

13 Q. All right. Thank you so much, Ms. Larrimer.

14 MS. SMITH: And, Your Honor, I'll pass the witness.

15 THE COURT: All right. Cross-examination by the
16 Plaintiff?

17 MS. GLASSER: And per the discussion earlier, could
18 I briefly approach prior to beginning?

19 THE COURT: You may approach the bench.

20 (The following was had outside the hearing of the
21 jury.)

22 MS. GLASSER: I wasn't sure if we were still in the
23 scenario where we were to preview you -- to you questions
24 regarding the other patents before they were asked.

25 THE COURT: You should.

1 MS. GLASSER: Sure. So I think there was extensive
2 questioning there about what PNC would have done if it had
3 heard earlier and whether it was feasible to make the changes.

4 And so my intention would be to ask first whether PNC did
5 any investigation about whether the new design would infringe
6 other patents, which she answered at her deposition, and then
7 also to ask whether PNC views that as feasible from a business
8 perspective to put out a product that just infringes other
9 patents instead.

10 THE COURT: Repeat that last statement.

11 MS. GLASSER: So she used the word that it was
12 feasible that there would be no problem. I think she
13 literally said -- I wrote it down -- that there would be no
14 problem with the new product. And so questioning about
15 whether she would consider that to be no problem if the new
16 design infringes other patents.

17 MS. SMITH: Your Honor, the questions were backward
18 looking. I mean, the patents that they're trying to bring
19 into this suit with every witness have not even issued in the
20 window where I'm talking about, non-infringing alternatives
21 way back.

22 MS. GLASSER: They absolutely had --

23 THE COURT: I think the door's been opened. I'll
24 permit those questions.

25 MS. GLASSER: Thank you, Your Honor.

1 (The following was had in the presence and hearing
2 of the jury.)

3 MR. SHEASBY: Your Honor, may I approach with
4 binders.

5 THE COURT: You may distribute witness binders.

6 MR. SHEASBY: Thank you.

7 THE COURT: All right. Ms. Glasser, you may proceed
8 with cross-examination.

9 CROSS-EXAMINATION

10 BY MS. GLASSER:

11 Q. Good afternoon, Ms. Larrimer. It's nice to see you
12 again.

13 A. Nice to see you as well. Thank you.

14 Q. Now, you are the only fact witness from PNC who will be
15 testifying in this trial live. Correct?

16 A. I believe that is true.

17 Q. And on -- you were here on the first day when Mr. Sheasby
18 walked through the questions that the jury will be asked to
19 decide at the end of the case. Correct?

20 A. Yes.

21 Q. And the first question the jury will be asked to decide
22 on the verdict form is whether or not PNC has infringed over
23 that five-year period at issue, whether PNC has infringed the
24 four patents-in-suit. Correct?

25 A. I can't remember exactly, but I believe that is true.

1 Q. And you understand the jury will need to determine
2 whether PNC infringed over that five-year period. Correct?

3 A. Sure, sure.

4 Q. And on that question, you have not done anything to
5 investigate whether there is merit to USAA's claims. Correct?

6 A. Personally I have just listened to our experts' testimony
7 and their review.

8 Q. Are you able to answer the question -- let me ask it
9 again. You personally, as head of PNC's retail bank, have not
10 done anything at all to investigate whether there is merit to
11 USAA's claims. Correct?

12 A. I have not. I don't know patent.

13 Q. And PNC has designated you as its sole representative for
14 this trial. Correct?

15 A. I believe that's true.

16 Q. As to the first question the jury will be asked to
17 decide, infringement, you have no knowledge one way or the
18 other. Correct?

19 A. PNC believes it has not infringed.

20 Q. Could you turn to your binder where your deposition
21 transcript is located?

22 A. Sure.

23 Q. And ask you to turn to page 9 at lines 9 through 13.

24 A. Oh, boy. I'm going to have a hard time reading this.
25 Can you repeat the lines again?

1 Q. Sure. Page 9, lines 9 through 13.

2 A. So you mean, sorry, the page numbers in the little blocks
3 versus the page number at the bottom?

4 Q. Yes, the page numbers of the deposition, exactly.

5 A. Okay. Go ahead.

6 Q. Does that refresh your recollection that as to the
7 question of whether PNC is infringing each of the
8 patents-in-suit, you have no knowledge one way or the other?

9 A. At the time of my deposition, I did not.

10 Q. And your deposition was in the middle of this case,
11 actually more than a year after the complaint had been filed.
12 Correct?

13 A. It was in, I think, November. It was a while ago.

14 Q. Which was more than a year after USAA brought this
15 lawsuit. Correct?

16 A. Yes. Yes.

17 Q. And on the question of validity of the patents, you
18 similarly have no knowledge one way or the other. Correct?

19 A. Validity of the patents. Just what do you mean by that?
20 Sorry.

21 Q. You don't have any knowledge, you've done no
22 investigation as to the validity of USAA's patents. Fair
23 statement?

24 A. Personally I have not.

25 Q. And you are the only PNC corporate representative who

1 will be testifying. Correct?

2 A. Yes.

3 Q. Now, the final question on the verdict form that the jury
4 will be asked to decide is damages. And you understand from
5 the Court's preliminary instructions and Mr. Kennedy's
6 testimony that the jury will be asked to award no less than a
7 reasonable royalty. Correct?

8 A. I did hear that, yes.

9 Q. And on that question, you've done -- you, as head of
10 PNC's retail bank and as the sole corporate representative
11 here today in court, you've done no assessment at all of how
12 much PNC reasonably should pay if it's found to have
13 infringed. Correct?

14 A. Personally I wouldn't have the skills to do that, but we
15 have experts who will testify to that.

16 Q. You, as PNC's corporate representative and the head of
17 the entire PNC retail bank, you have done no investigation at
18 all or any assessment of what PNC reasonably should pay.
19 Correct?

20 A. That is correct. I have no skills to do that.

21 Q. And, in fact, wouldn't -- would you agree that you are
22 not able to provide any factual information at all regarding
23 the value to PNC of the USAA patents?

24 A. Our experts will do that.

25 Q. And I'm asking you about you personally.

1 A. Oh, sure. No, I'm not.

2 Q. Because you can have a situation where an expert gives
3 useful information but the fact witnesses provide information
4 as well. Correct?

5 A. Yes.

6 Q. And in this case, PNC will be relying solely and entirely
7 on the testimony of its hired expert, Mr. Vellturo. Correct?

8 A. I will not be presenting anything on that.

9 Q. And you personally, you aren't aware, at least you
10 haven't gone through the exercise and thought through, of any
11 way to calculate the total cost savings and profit to PNC from
12 the accused mobile deposit system. Correct?

13 A. Are you asking if I thought about that?

14 Q. Do you know if there is any way to figure that out for
15 you personally?

16 A. I have reviewed what our expert has said, and I believe
17 that is the way to figure it out. So that is my opinion.

18 Q. I'd ask you to turn to your deposition at page 106, line
19 17 through 24.

20 THE COURT: And while she's doing that, let me
21 remind both of you ladies to make sure you don't speak over
22 each other.

23 MS. GLASSER: Yes, Your Honor.

24 THE WITNESS: Okay. Page 106?

25 Q. (BY MS. GLASSER) Yes.

1 A. And where did you want to direct me?

2 Q. Line 17 through 24. And does that refresh your
3 recollection that at least as of about 13 months into this
4 lawsuit, you personally didn't think that you knew how to
5 figure out the total cost savings in profit? Correct?

6 A. That would be correct, yes.

7 Q. Okay. But others at PNC do know how to calculate cost
8 savings from the accused product. Correct?

9 A. I don't know that for a fact.

10 MS. GLASSER: Could we pull up PX 43, please?

11 Q. (BY MS. GLASSER) You've seen this document before?

12 A. Yes, I have.

13 Q. And this is from a presentation given to the investing
14 public by Mr. Demchak. Correct?

15 A. Yes.

16 Q. Mr. Demchak is the person to whom you report. Correct?

17 A. Yes.

18 Q. And if we go to page 2, you see Mr. Demchak's name, and
19 to page 7, we see Mr. Demchak, and this was shown earlier in
20 court as well, representing to PNC's investing public that
21 deposit checks using mobile technology saves us -- us being
22 PNC. Yes?

23 A. Yes, correct.

24 Q. -- about \$3.88 per transaction. Do you see that?

25 A. Yes.

1 Q. And Mr. Demchak and the person who helped him prepare
2 this document, they won't be here in court. Correct?

3 A. They will not, to the best of my knowledge.

4 MS. GLASSER: Could we turn to PX 175, please.

5 Q. (BY MS. GLASSER) And while we're pulling that up, Mr.
6 Kennedy touched on this earlier, but you agree with Mr.
7 Kennedy that Mr. Demchak was required, he was under an
8 obligation of truthfulness to the investing public when he
9 presented that \$3.88 figure?

10 A. Yes. Mr. Demchak is always truthful.

11 Q. So we're looking now at PX 175, and we see here another
12 presentation by some PNC employees showing almost the exact
13 same number. It's \$4 minus 13 cents, so \$3.87. Correct?

14 A. Yes, that is correct.

15 Q. And do you know who prepared this document?

16 A. It was the marketing team at PNC.

17 Q. Would you be surprised if I told you it was actually Mr.
18 Trebilcock?

19 A. I wouldn't be surprised. Mr. Trebilcock probably worked
20 with marketing. The reason I said it was marketing is because
21 of the title. Marketing controls are CIM treatments.

22 Q. But you don't know who prepared it. Correct?

23 A. Oh, a name, no, I can't give that to you. I don't know.
24 This is pretty old.

25 Q. And the person who drafted the document is not going to

1 be here in court. Correct?

2 A. No, they will not be.

3 Q. Now, you personally don't have any reason to agree or
4 disagree with these \$3.88 and \$3.87 figures that we just saw.
5 Correct?

6 A. I do have knowledge about the \$3.88 and what it
7 represented.

8 Q. So do you have any reason to agree or disagree with that
9 number?

10 A. I do have reason to disagree with it.

11 Q. Did you ever tell Mr. Demchak after he gave the public
12 presentation to the investors under obligation of truth that
13 you thought his number was incorrect?

14 A. I did not because at the time I was not aware of his
15 presentation.

16 Q. When did you first see those documents?

17 A. As part of this process.

18 Q. Okay. So turning to a slightly different topic, your
19 major focus of your career, recent job anyway, has been
20 customer service. Correct?

21 A. Yes, correct.

22 Q. And you believe that customer service is a very
23 significant factor that drives customers' decisions to either
24 stay at a bank or to leave a bank. Is that fair?

25 A. It would absolutely be a factor, yes.

1 MS. GLASSER: Could we pull up PX 814, please?

2 Q. (BY MS. GLASSER) And do you recognize PX 814?

3 A. Yes, I do.

4 Q. Now, PX 814 is a document that folks at PNC put together
5 to do what they called a deep dive into USAA. Correct?

6 A. Yes, that's correct.

7 MS. GLASSER: If we can turn to page 4 at the
8 bottom.

9 Q. (BY MS. GLASSER) We see here that one of the things that
10 PNC concluded is that they were -- let's take a step back
11 actually. So this document, in part, was specifically
12 focusing on your area of interest, which is customer service.
13 Correct?

14 A. Yes, you are correct.

15 Q. And what PNC concluded was that USAA's competitive
16 advantage in customer service was due to three things, one of
17 which was its innovative technology. Correct?

18 A. Yes, it says that.

19 Q. And then if we could go to page 7, the document from PNC
20 gets a lot more specific about exactly what USAA technology
21 PNC felt was so critical to customer service. Correct?

22 A. Yes, that's correct.

23 Q. Specifically what PNC concluded was so important to
24 customer service was to be a leader in mobile applications.
25 Correct?

1 A. This is explaining what USAA has built around technology
2 and makes them stand out in customer service.

3 Q. USAA's competitive advantage. Correct?

4 A. In this regard, yes.

5 Q. And so USAA's competitive advantage is being an industry
6 leader in mobile applications including, as stated on this
7 slide, being the first company to allow mobile deposits.
8 Correct?

9 A. Yes, one of many things called out in this presentation.

10 Q. And then if we go to slide 13, the PNC folks analyzing
11 USAA went into some detail as well, focusing in particular on
12 the mobile deposit, USAA's Deposit@Mobile app. Correct?

13 A. Yes, they did.

14 Q. And so, for example, they say, I love the scanning
15 depositing funds into my USAA account, having been with them
16 14 years. I would never switch to another bank. Correct?

17 A. That's what it says, yes.

18 Q. And those are pretty significant words of praise that PNC
19 found important enough to highlight in this executive
20 presentation. Fair?

21 A. It looks like they pulled out a couple of examples.

22 Q. And, now, when USAA was going through -- PNC was going
23 through this walk-through of USAA and what it is that USAA is
24 doing with their technology to retain customers, PNC actually
25 then went forward and calculated what the financial benefit to

1 that would be. Do you recall that?

2 A. I do not.

3 MS. GLASSER: Let's turn to page 9.

4 Q. (BY MS. GLASSER) PNC actually put together this chart.
5 And if we look at the text on the bottom of the page, the
6 impact PNC estimated of increasing retention in this fashion
7 by just one percent a year would result in \$2.2 billion more
8 in revenue. Correct?

9 A. It says that, but it is not related back to specifically
10 mobile remote deposit, just to be clear.

11 Q. The entire presentation is all about USAA. Correct?

12 A. It is about USAA having very good customer satisfaction
13 for a number of reasons. Correct.

14 Q. Exactly. And just to make sure everyone's clear about
15 what those reasons are, if we go back to page 4, there are
16 three reasons--empowering people, customer-centric processes,
17 and one of the top three reasons was that innovative
18 technology. Correct?

19 A. Yes, at the highest level of comments.

20 Q. Okay. And so back to the financial impact, even just a
21 one percent difference, PNC concluded, would equate to 2.2
22 billion in revenue. Correct?

23 A. That is what it says.

24 Q. But, nonetheless, I think there was a suggestion, either
25 by your counsel or by you during your direct examination, that

1 mobile remote deposit is just really not that significant to
2 PNC. Did I get that correctly?

3 A. The features that we have been accused of are not at all
4 significant to PNC.

5 Q. Well, let's take it in pieces then. Have you read the
6 patent claims or at least watched them come up on the screen
7 while other witnesses were testifying?

8 A. I saw what happened here in court for sure, yes.

9 Q. And you understand that the patent claims cover much more
10 than just one or two little features. Correct?

11 A. All of your patent claims, I imagine they do, yeah.

12 Q. And the ones at issue in this trial specifically. You
13 were here when Doctor Conte testified and walked through each
14 of the claims?

15 A. I was here, yes.

16 Q. And the claims cover quite a number of aspects of the
17 deposit system, certainly not just two features. Fair?

18 A. Okay. I'm not a patent expert so I may have missed some
19 of that.

20 Q. So MRDC, overall, you can agree is quite significant to
21 PNC. Correct?

22 A. No.

23 MS. GLASSER: Let's pull up PX 304 at page 1.

24 Q. (BY MS. GLASSER) And this is a PNC document written just
25 a few months before this lawsuit was filed actually in 2020.

1 Correct?

2 A. It says April 16th, 2020, yes.

3 MS. GLASSER: And if we go to page 2, if we
4 highlight up at the top of the -- yeah, down through the
5 bullet points. Thank you.

6 Q. (BY MS. GLASSER) Here I think there was some talk about
7 a nine percent number earlier. To be clear, nine percent
8 doesn't represent what percentage mobile deposit is of the
9 overall bank deposits. Correct?

10 A. No, that is not what I represented.

11 Q. Just to be clear, mobile remote deposit accounts for
12 about 17 percent of all deposits for the bank. Correct?

13 A. That's what it says here.

14 Q. And your slide, I think, had a somewhat similar number,
15 something like 2 million deposits per month. Correct?

16 A. It did, yes.

17 Q. And the actual number, to be precise, is 2.2 million.
18 Correct?

19 A. That's what this document says. It varies month to
20 month.

21 Q. And the overall value of those deposits every month is \$1
22 billion. Correct?

23 A. So I believe that represents the dollar amount of the
24 checks being deposited.

25 Q. Every month. So per year, it's about \$12 billion in

1 deposits. Correct?

2 A. If you extrapolated it out, that's what that would say.

3 Q. To you, is 17 percent of all deposits for the bank
4 comprising \$12 billion a year, is that significant or
5 insignificant for the bank?

6 A. It is -- so a billion dollars of deposits, a billion
7 dollars is a big number to any person, but it is -- well, 17
8 percent of all deposits just itself gives you the statistics
9 that there is a lot more deposits outside of remote deposit
10 happening.

11 Q. Can we agree that --

12 A. Majority.

13 Q. But we can agree \$12 billion, it's a fairly significant
14 amount of money?

15 A. That is a significant amount of money, of course.

16 Q. Now, switching gears just a little bit, you went through
17 a timeline of sort of some historical things that had gone on
18 at PNC, and you talked a little bit about some systems that
19 PNC provided for businesses back in the 2007 time frame. Do
20 you recall that?

21 A. For small businesses? Yeah, January 2007.

22 Q. And big businesses as well?

23 A. That was prior. That was 2005, yes.

24 Q. And just to be completely clear, those products were very
25 different from the technology at issue in this case--mobile

1 remote deposit. Correct?

2 A. It utilized scanners is what I explained to the jury.

3 Q. And not just scanners, we're not talking about those sort
4 of inexpensive flat-bed scanners that someone could pick up at
5 the Walmart. We're talking about those very expensive
6 specialized check scanners. Correct?

7 A. I don't know that they were very expensive when we
8 provided them to our customers.

9 Q. Do you know one way or the other what the technical
10 details were or how much they cost?

11 A. I can't recall.

12 Q. Let's see if we can refresh your recollection with --

13 A. Sure.

14 Q. -- DX 1678. Do you recognize this document?

15 A. I do.

16 Q. And this is dealing with one of those programs that you
17 talked about in your direct examination. Correct?

18 A. This was for large corporations across America, yes.

19 Q. This is the very first thing that you had on your
20 timeline. Yes?

21 A. Yes, ma'am.

22 Q. And so if we turn to page 7, we see this piece of
23 equipment here on the right-hand side and describes some of
24 the features, specialized things like an auto feeder and
25 endorser and output pocket, et cetera?

1 A. Yes, correct.

2 Q. And this is exactly that type of specialized check
3 processing equipment that was described earlier in the case.
4 Correct?

5 A. This is an example, yes.

6 Q. And this same type of equipment was also used --

7 THE COURT: Ms. Glasser, slow down, please.

8 MS. GLASSER: Thank you, Your Honor.

9 Q. (BY MS. GLASSER) The same type of specialized check
10 scanner was also used with what you called the small business
11 program. Correct?

12 A. Yes, something similar.

13 Q. And then if we can turn to page 6, this document here
14 again shows that same scanner on the bottom left. Correct?

15 A. The scanner we used for large corporates, yes.

16 Q. And for small corporate?

17 A. I don't know if it was the exact same scanner. I'm
18 sorry. I don't know.

19 Q. That's okay. But something similar was used for all the
20 business customers. Correct?

21 A. It had some of the same capabilities, yes.

22 Q. And in terms of the price, does this -- looking to the
23 right side of the screen, does this refresh your recollection
24 that the cost of these specialized devices was in the -- at
25 least \$500 up to \$4,000 or more?

1 A. Yeah. I can only say that's what it says on the paper.

2 I was not in the large corporate area.

3 Q. And do you have any reason to question that the devices
4 that were used in connection with the business programs you
5 discussed earlier cost 500 to \$4,000?

6 A. I believe they were on the lower end of that scale.

7 Q. Do you know which scanners were used?

8 A. I do not recall.

9 Q. Now, it would not be practical for PNC to use this type
10 of a specialized scanner system for consumer remote deposit.
11 Correct?

12 A. No, it would not be.

13 Q. I'd like to talk to you a little bit about the products
14 that are at issue in this case and the products that are not
15 at issue.

16 You understand that the products that are at issue that
17 the jury is being asked to decide infringement and damages for
18 are the PNC Mobile Deposit System from 2016 through mid 2021?

19 A. I understand that is what the patents refer to as mobile
20 remote deposit.

21 Q. And you understand that the PNC product that is accused
22 of infringement is the system that was offered between 2016
23 and mid 2021?

24 A. I heard that those were the years being utilized.

25 Q. Now, in mid 2021 in the middle of the lawsuit, PNC put

1 out a new product. Correct?

2 A. Yes, we did.

3 Q. And when you put out the new product, you didn't do any
4 investigation to determine whether the new product infringed
5 other USAA patents. Correct?

6 A. I personally did not.

7 Q. And you didn't ask anyone at the PNC retail bank to do
8 that investigation. Correct?

9 A. I personally did not. We do not review patents in the
10 group that I manage.

11 Q. And when you say the group you manage, I want to be
12 clear. You are in charge of the entire retail bank. Is that
13 correct?

14 A. That is correct, yes.

15 Q. And the retail bank is the part of PNC that offers mobile
16 remote deposit. Correct?

17 A. Yes.

18 Q. And you were here in court when Doctor Conte explained
19 that the new product in his opinion does not avoid
20 infringement of other USAA patents. Correct?

21 A. I heard that statement.

22 Q. Would you agree that, from PNC's perspective or the
23 perspective of any reasonable business, it's not a good
24 solution to patent infringement to simply start using
25 different patents instead?

1 A. PNC does not infringe.

2 Q. So you testified that the reason you put out the new
3 product -- and actually let's take a step back. You actually
4 don't know whether or not PNC infringes. Correct? You
5 testified to that earlier?

6 A. I have reviewed our expert's review of that.

7 Q. And you testified under oath --

8 A. Sure.

9 Q. -- that you had no view about that at all. Correct?
10 Just yes --

11 A. Yep.

12 THE COURT: All right. I'm going to say it again.
13 You-all have to speak one at a time. You're jumping in on
14 each other. You are adding a sure here in the middle of a
15 question. This is not a conversation on the street corner.
16 It's an examination in a federal court under specific rules,
17 and those rules are counsel asks discrete questions and the
18 witness answers those questions, followed by another question
19 and another answer, and you wait for each other and you don't
20 interrupt and you don't talk over each other and you don't
21 talk so soft that we can't hear and you don't talk so fast
22 that we can't follow. You do it in a regular order pursuant
23 to the Rules of Civil Procedure.

24 So that's what I'm going to expect of both of you going
25 forward.

1 MS. GLASSER: Understood, Your Honor.

2 THE COURT: All right.

3 Q. (BY MS. GLASSER) Let me start by breaking it up in
4 pieces. You testified earlier that if PNC had known about
5 USAA's claims, they would have just solved the whole problem
6 by putting out the new product. You said that when your
7 counsel was examining you. Correct?

8 A. Yes.

9 Q. Would you agree that it doesn't solve the problem if the
10 new product infringes other USAA patents?

11 A. Yes.

12 MS. GLASSER: Could we have PDX 10.52, please, the
13 demonstrative?

14 Q. (BY MS. GLASSER) And you know Mr. Kunz. Correct?

15 A. Yes.

16 Q. He is somebody who works in your organization?

17 A. Yes.

18 Q. And you understand him to actually be the executive in
19 charge of mobile remote deposit. Correct?

20 A. That is under his purview, yes.

21 MS. GLASSER: Could we actually have one more slide
22 forward? Back? Sorry about that. Back one more.

23 May I approach the table?

24 THE COURT: You may.

25 MS. GLASSER: Sorry about that. PDX 10.50 which is

1 now magically up on the screen. Thank you.

2 Q. (BY MS. GLASSER) You were here in court when this
3 testimony was played and was displayed to the jury.

4 A. Yes.

5 Q. Was that the first time that you were made aware that Mr.
6 Kunz was the PNC corporate designee on the question of whether
7 there are any viable and non-infringing alternatives to the
8 USAA patents-in-suit?

9 A. Yes.

10 Q. And Mr. Kunz testified that he, as the PNC corporate
11 representative on that topic, had not investigated whether any
12 viable alternative exists to the USAA patents that does not
13 infringe other USAA patents? Correct?

14 A. That is what this says.

15 Q. Have you ever directed Mr. Kunz to do an investigation?

16 A. No.

17 Q. Are you aware of anyone in the PNC retail bank doing that
18 investigation?

19 A. No. They would not have the expertise.

20 Q. Were you here in court when Doctor Conte testified that,
21 in addition to infringing just different USAA patents, instead
22 PNC's actually still infringing the '571 Patent?

23 A. I heard him say that.

24 Q. And prior to being here in court today and yesterday,
25 have you done any investigation of that issue yourself?

1 A. Not personally, no.

2 THE COURT: Pull the microphone a little closer,
3 please, Ms. Larrimer.

4 THE WITNESS: Sure.

5 THE COURT: We want to make sure everybody hears
6 you.

7 THE WITNESS: Okay. Yes, sir.

8 Q. (BY MS. GLASSER) Let's switch topics a little bit.
9 So -- well, let's transition from that a little bit. I guess
10 are we in agreement that if you switch a product and simply
11 start infringing other patents instead, that's not a viable
12 business solution?

13 A. If that were true, I would agree.

14 Q. And you have no basis to believe that is -- well, let me
15 withdraw the question.

16 Have you done any investigation at all to see whether
17 that's true?

18 A. Personally, no.

19 Q. But in addition to the fact that the new product has at
20 least been accused of infringing all of these other patents,
21 there's also some fairly significant error and
22 customer-related issues with the new product. Can you agree?

23 A. Could you tell me more about that?

24 Q. Sure. Well, let's take it into pieces. Have you
25 actually reviewed the customer complaints and customer reviews

1 for the new product yourself?

2 A. I have seen the customer reviews, yes.

3 Q. So at the time of your deposition, which was a few months
4 back and well after the launch of the new product, you hadn't
5 done it at that point. Correct?

6 A. They had not been brought to my attention, no.

7 Q. And you're pretty senior in the company, of course, being
8 in charge of the entire retail bank. Correct?

9 A. Correct.

10 Q. And so, to you, even thousands of customers making
11 complaints isn't something that you would necessarily want to
12 know about. Fair?

13 A. That is not fair.

14 Q. Could you turn to your deposition at page 70, lines 2
15 through 7?

16 A. I'm there.

17 Q. And does that refresh your recollection that your view is
18 that thousands of customers making complaints is not something
19 that you view as likely reaching a level of materiality to
20 you?

21 A. Yes, that is what I said. I didn't view that as the same
22 question you asked me a moment ago.

23 Q. Well, let's make sure we're on the same page. At your
24 level, unless there is somehow even more than thousands and
25 thousands of customers complaining, it's not going to be

1 material to you personally. Correct?

2 A. That is not correct.

3 Q. So how many people have to make a complaint for it to be
4 material to you?

5 A. It is not a number that matters. It is the content of
6 the complaint, not the number. And we have millions and
7 millions of customers --

8 Q. Let's take a look then at PX 13 to see what type of
9 complaints were coming in.

10 A. Sure.

11 Q. Now, PNC -- PX 13 is actually a compilation that PNC made
12 itself internally when these complaints started rolling in.
13 Correct?

14 A. If I may clarify, these are app store reviews is my
15 understanding. Is that your understanding? That's what I'm
16 looking at, I think, not --

17 Q. I'm not sure if we missed each other, but the question is
18 just what we're looking at here, PX 13, this is a compilation
19 that PNC itself put together when these complaints started
20 coming in through the app store. Is that correct?

21 A. Yes, correct.

22 Q. And there's lots of complaints in here. We have -- let's
23 blow up the top three on the second page, starting with the
24 one that says, recent upgrade mobile deposit, one star. And
25 so this first person, they're unhappy, they say, I've had a

1 horrible experience with the new upgrade, so-called upgrade.

2 Correct?

3 A. That is what it says, yes.

4 Q. And then the second person right after that says,
5 depositing is now a mess, the latest update to remote deposit
6 is a big step backwards. Do you see that?

7 A. Yes, I do.

8 Q. And I think you said a moment ago you didn't think any of
9 the changes would ever cause someone to switch branches -- I'm
10 sorry, switch banks. Is that what you said?

11 A. Not exactly.

12 Q. Okay. Because some of these changes were causing
13 problems at the level that your customers were either leaving
14 or thinking about leaving. Correct?

15 A. Some of them stated that. I said I had not seen anyone
16 actually leave in the numbers I look at. That's what I said.

17 Q. Would you know if somebody had left because of the new
18 mobile deposit feature?

19 A. I may or may not.

20 Q. And so this person in fact says, you know, fortunately
21 they lived close to a branch. They were either going to start
22 getting charged. If they do, I will be looking for a new
23 bank. This person literally can't use the new mobile remote
24 deposit. At least that's what they're saying in their
25 complaint. Correct?

1 A. That is what he said or she.

2 Q. And the next person goes on: The new update is
3 absolutely horrible. If the app isn't broke, don't fix it.
4 Correct?

5 A. Yes, I see that now, yes.

6 Q. And quite a number of folks actually also wrote to
7 complain specifically about the absence of auto-capture.
8 Correct?

9 A. I can't recall exactly.

10 Q. Ask well let's look at a few examples.

11 MS. GLASSER: If we could turn to the next page, the
12 third review. Yeah, the one that says downgraded
13 significantly.

14 Q. (BY MS. GLASSER) This person, I guess, was actually
15 pretty kind. They actually still gave you three stars.
16 Right?

17 A. They did, yes.

18 Q. But they said, This used to be a five-star app but has
19 taken a large step back with the mobile deposit upgrade. The
20 app used to automatically take the check image when you are
21 close enough, but now you have to take a wild guess if you
22 think the image is ready. And they go on. At the end they
23 say, Have not been able to make a mobile deposit since the
24 last upgrade. Do you see that?

25 A. Yes, I do.

1 MS. GLASSER: So then if we go to the next page,
2 let's also blow up the top three there.

3 Q. (BY MS. GLASSER) These people also have some very
4 significant complaints, two of which are specifically about
5 the lack of auto-capture. Correct?

6 A. Yes.

7 Q. And if we look at the bottom one, it says, In the last
8 update, it has become impossible for someone like myself with
9 palsy to be able to actually take a photo. Do you see that?

10 A. I do.

11 Q. PNC didn't actually do any testing at all to see if the
12 new product would be suitable for folks with disabilities
13 before releasing it. Correct?

14 A. I don't know if that is true or not. We do test for
15 disability, ADA.

16 Q. You didn't in this instance. Correct?

17 A. I do not know.

18 Q. Okay. And so the person above, they -- they don't
19 necessarily mention a disability, but they do say a lot of
20 complaints about the new process. And they say, If this can't
21 be improved, I will have to bank somewhere else. I swear to
22 you it was really good before. Why the three steps back?

23 Do you see that?

24 A. I do see that.

25 Q. And not to belabor the point, let me just go through a

1 few more which are illustrative.

2 MS. GLASSER: If we go one more down to the one
3 that's by -- yes.

4 Q. (BY MS. GLASSER) The mobile deposit doesn't
5 auto-photograph for some reason anymore, which is a huge step
6 back. It took me six attempts to perfectly photograph my
7 check manually.

8 Do you see that?

9 A. Yes, I do.

10 Q. And, by the way, these are all over a period of roughly a
11 week or so that all these complaints are rolling in. Correct?

12 A. Yes. When the change happened.

13 Q. And I'm obviously not reading them all out loud because
14 we'd be here for quite some time. Fair?

15 A. Fair.

16 Q. So the types of complaints we're seeing, you hadn't seen
17 any of those at the time. Is that correct?

18 A. From the app store, no, I have not.

19 MS. GLASSER: And if we could put up PDX 1083.

20 Q. (BY MS. GLASSER) You were here when Mr. Kennedy
21 testified about some of the error rates issues that PNC
22 experienced with the new app and as well the Regulation E
23 disputes. Correct?

24 A. Yes, I was.

25 Q. And in your direct examination, you didn't take issue

1 with any of the numbers on Mr. Kennedy's slide. Correct?

2 A. Those numbers look correct to me.

3 Q. Reg E issues are important to a bank. Correct?

4 A. Yes, they are. Reg E gives -- yes, they are.

5 Q. And error rates are also very important to the bank for
6 at least two reasons: One, they make customers unhappy; and,
7 two, they cause increased costs to the bank. Correct?

8 A. We do care about error rates, correct.

9 Q. Now, you gave some testimony earlier about -- the gist of
10 it seemed to be that you thought USAA should have reached out
11 to PNC. Is that a fair characterization?

12 A. Yes, based upon their own words in the American Banker
13 article.

14 Q. Now, almost two years ago in 2020, USAA sent a letter
15 asking PNC to take a license. Correct?

16 MS. SMITH: Can we approach, Your Honor?

17 THE COURT: Approach the bench.

18 (The following was had outside the hearing of the
19 jury.)

20 MS. SMITH: This is going to be 408. It was
21 excluded in pretrial. It was their letter after the suit was
22 filed and our response after the suit was filed.

23 MS. GLASSER: I'm just asking if it's the same
24 letter that Mr. Wilkinson testified to in his examination.

25 MS. SMITH: I don't recall him testifying to the 408

1 letters at all.

2 MS. GLASSER: It wasn't -- it wasn't labeled as 408,
3 but the letter itself --

4 THE COURT: I understand. Can you pull it up from
5 his testimony from his slide deck?

6 MS. SMITH: No. It wasn't shown, Your Honor.

7 MS. GLASSER: We're not trying to get the letter in.
8 She said they never reached out, and I want to confirm that
9 they did in fact reach out.

10 MS. SMITH: They're not trying to get the letter in
11 because this testimony has been excluded. This has been
12 excluded as 408. And just because you're not going to show
13 the letter doesn't mean you can talk about it.

14 THE COURT: Well --

15 MS. SMITH: The exclusion would have --

16 THE COURT: -- the exclusion goes to the admission
17 of the document. We're not talking about the admission of the
18 document.

19 MS. GLASSER: Correct.

20 THE COURT: We're talking about you asking the
21 witness if she's aware that a letter was sent.

22 MS. GLASSER: And that's it and I'll stop.

23 THE COURT: I think you can do that, and I'll
24 overrule the objection to that extent.

25 MS. SMITH: Does that open the door to our response

1 then? Because we responded. We can have a whole 408
2 discussion as long as we don't show the jury the letters, I
3 guess.

4 MS. GLASSER: All I'm trying to do is show that what
5 she said in her direct was not correct.

6 MS. SMITH: What she said in her direct was that
7 prior to lawsuit we never got a letter. This is all after we
8 got sued and settlement talks.

9 MS. GLASSER: And the clear insinuation is that USAA
10 had never reached out to them.

11 MS. SMITH: Prior to the lawsuit every single
12 question was phrased.

13 THE COURT: So the letter we're talking about was
14 sent after suit was filed?

15 MS. GLASSER: Like a week or two after.

16 MS. SMITH: And we responded. So it can all come in
17 then, Your Honor, I guess.

18 THE COURT: And the substance of the letter was to
19 inquire as to terms of settlement?

20 MS. GLASSER: It asked if they're interested, do you
21 want to take a license, do you want to provide us some
22 information, talk about license.

23 PNC didn't respond itself, but they did have a lawyer,
24 their litigation counsel at that time, which is a prior firm
25 before Munger got involved, sent out a litigation type of

1 letter. And I think they may have labeled their response 408,
2 although I don't recall specifically.

3 MS. SMITH: It's clearly 408.

4 THE COURT: So there were no serious settlement
5 negotiations.

6 MS. GLASSER: Not at that time, no.

7 MS. SMITH: Again, Your Honor, my questions were all
8 prior to lawsuit, and all the 408 is after. There's no
9 evidence in the suit that anything -- there was any outreach
10 until after with these settlement talks.

11 THE COURT: Tell me again what it is you want to ask
12 the witness, Ms. Glasser.

13 MS. GLASSER: I just want to have her confirm what
14 Mr. Wilkinson said is true, that PNC received a letter in 2020
15 shortly after the suit was filed. And I can ask it that way,
16 too, like, do you agree with Mr. Wilkinson that this letter
17 was sent in 2020, October 2020? She will say yes or no. I
18 can move on.

19 MS. SMITH: That also has no legal relevance, Your
20 Honor. Notice prior to a suit is a legal issue, it has legal
21 relevance of notice. This is just -- I mean, this has no
22 relevance to any issue.

23 THE COURT: Okay. If Wilkinson testified to the
24 fact that a letter was sent earlier and Defendants didn't
25 object to that, then I don't know why it should be excluded at

1 this point.

2 You can ask if she was here and heard the testimony of
3 Mr. Wilkinson and does she agree or disagree with that.

4 MS. GLASSER: Yes.

5 THE COURT: And that's the extent of it. No more,
6 no less. And that's not going to open the door to any further
7 discussion.

8 MS. SMITH: We understand. Can we make sure she
9 clarifies that it's after the suit is filed?

10 MS. GLASSER: I'm happy to do that. I'll say the
11 exact date, yeah.

12 THE COURT: All right. Let's go forward.

13 (The following was had in the presence and hearing
14 of the jury.)

15 THE COURT: Let's proceed.

16 Q. (BY MS. GLASSER) Do you still have the question in mind?

17 A. Could you repeat it, please?

18 Q. Sure. So were you here when Mr. Wilkinson testified from
19 USAA?

20 A. I was, yes.

21 Q. And Mr. Wilkinson testified that USAA not only reached
22 out to industry earlier, but specifically sent a letter to PNC
23 right after the lawsuit was filed. Do you recall that?

24 A. I heard him say that, yes.

25 Q. Do you have any reason to dispute that that's correct?

1 A. That a letter was sent after the lawsuit? I have no
2 reason to dispute that.

3 Q. In October 2020. Correct?

4 A. I don't know the exact date. I know it was after the
5 lawsuit was filed.

6 Q. And I think you also said that you were surprised when
7 you heard about USAA's patent claims. Is that right?

8 A. Correct.

9 Q. That Mr. Kunz and others at PNC who worked directly in
10 mobile deposit, they all knew back in 2017 that USAA had
11 mobile remote deposit patents. Correct?

12 A. I don't know specifically what they knew when.

13 Q. Have you ever spoken to Mr. Kunz about the USAA patents?

14 A. Back then, I did not. At this point in time, I have.

15 Q. And you watched his video yesterday where first he denied
16 that he heard about the patents in 2017 and then he
17 acknowledged that he had heard about them. Do you recall
18 that?

19 A. I don't recall it exactly. But if that's what was on
20 there, I --

21 Q. Sounds familiar, anyway?

22 A. Yes.

23 Q. Now, I think PNC's litigation counsel said in his
24 opening, and here's the exact quote, that back in 2017 PNC,
25 after speaking with its supplier, thought they had good reason

1 to think they didn't infringe.

2 Do you recall I think it was Mr. Stone saying that?

3 A. Yes.

4 Q. But, in fact, PNC and you are not aware of anyone, any
5 supplier or anyone else, in 2017 identifying any defenses to
6 infringement of the USAA patents. Correct?

7 A. I don't recall any knowledge.

8 Q. Back in 2017, whatever discussions were had with
9 suppliers, none of those suppliers gave PNC any assurance
10 whatsoever that there were defenses to USAA's claim. Fair
11 statement?

12 A. Defenses? I'm not aware of any.

13 Q. And PNC's counsel also made a number of comments
14 insinuating to the jury that, well, if you're using a vendor,
15 everything's okay and there's nothing wrong at a high level
16 with using a vendor.

17 Do you recall those kind of statements and insinuations
18 being made?

19 MS. SMITH: Objection, Your Honor. She's
20 mischaracterizing lawyer questioning. We are not insinuating
21 anything, Your Honor.

22 THE COURT: What's your response, Ms. Glasser?

23 MS. GLASSER: Well, I'm just asking her if she
24 perceived that insinuation to be what her counsel was
25 communicating to the jury. I can rephrase it if that would

1 help.

2 THE COURT: I don't see any -- I mean, it's one
3 thing for a witness to testify about what they know about.
4 We've had a lot of this trial of witnesses being asked what
5 other witnesses testified to, and we need to focus on the
6 personal knowledge of the individual witnesses, not what they
7 heard somebody say and their version of what they heard
8 somebody say earlier in the trial.

9 MS. GLASSER: Well, let me cut right to the chase
10 then.

11 Q. (BY MS. GLASSER) Can we agree that there is something
12 most definitely wrong with using a vendor if you have reason
13 to believe the vendor's product is infringing USAA's patents?

14 A. If you knew that they were?

15 Q. If you had a good reason to believe your vendor was
16 infringing USAA's patents, there would most definitely be
17 something wrong with just going ahead and proceeding. Fair?

18 A. If we knew that factually, that would be -- that's a fair
19 statement, yes.

20 MS. GLASSER: Can we pull up PX 877, please?

21 Q. (BY MS. GLASSER) And while we're getting that situated,
22 you're aware that one of the vendor components PNC uses is
23 called MiSnap. Correct?

24 A. Yes.

25 Q. And what we're looking at on the screen here is an email

1 sent around amongst a number of PNC folks in 2019, including
2 folks who've been testifying by video, such as Mr. Goodstein.
3 Correct?

4 A. Yes.

5 Q. And a number of other folks who all work within your
6 organization. Correct?

7 A. Within PNC, yes. Within my organization, no.

8 Q. Some of them do. Mr. Goodstein at least is in your
9 organization?

10 A. Just one. I'm sorry.

11 Q. Mr. Goodstein is in your organization. Correct?

12 A. Yes.

13 Q. And all of these folks work for PNC. Correct?

14 A. Yes.

15 Q. And what they're emailing about in November 2019, they're
16 stating, so USAA had the patent on MiSnap. Do you see that?

17 A. I read it as a question they had.

18 Q. And did you ever hear anyone resolve the answer to that
19 question?

20 A. I did not.

21 Q. And you understand that -- actually let me ask this.

22 You know that PNC has the ability to see exactly what the
23 code is they're getting from their vendors. PNC itself
24 actually obtains that code and configures it and integrates it
25 into the system. Correct?

1 A. That is not something I personally know.

2 Q. Do you know one way or the other?

3 A. I do not know one way or the other.

4 Q. Let me go ahead and show you PX 1080 at page 6.

5 MS. GLASSER: It looks like maybe it's upside down.

6 Is there any way to flip it around? Oh, perfect. Thank you.

7 Q. (BY MS. GLASSER) And so what we're looking at here, we
8 can tell from the Bates number at the bottom of the page, this
9 is a PNC-produced document. Correct?

10 A. It says PNC, yes.

11 Q. And this shows up at the top, IOS code snippets.

12 Correct?

13 A. Yes.

14 Q. And so what this is, this is a document where PNC has in
15 its internal files those actual code snippets. Correct?

16 A. It appears to be.

17 Q. And code, of course, is software that has been talked
18 about throughout this trial. Correct?

19 A. Yes.

20 Q. So can we agree that when a company learns that another
21 company has a patent relating to its product, that the right
22 thing to do is to go and investigate and see if you're using
23 it?

24 A. Yes.

25 Q. PNC actually has thousands of different policies

1 internally relating to all kinds of different topics.

2 Correct?

3 A. Yes, we do.

4 Q. But PNC, at least to your knowledge as head of the retail
5 bank, doesn't have any policies or procedures to prevent
6 patent infringement. Correct?

7 A. I do not know one way or the other.

8 Q. Well, you've certainly never told any of the PNC
9 employees in your organization that they should avoid
10 trespassing on patent rights. Correct?

11 A. I have not said that. I tell my team to do the right
12 thing.

13 Q. And you can't tell us whether there is anyone at PNC that
14 you consider to be accountable for making sure that the mobile
15 deposit product doesn't use USAA patents.

16 A. That would fall into our legal department.

17 Q. I'm going to ask you to look at your deposition at page
18 19, lines 5 through 18.

19 And does that refresh your recollection that you really
20 can't tell us who would or would not have been accountable for
21 making sure the mobile remote deposit product doesn't use
22 patents?

23 A. By specific name, I do not know.

24 Q. And you just mentioned a moment ago the legal department.
25 But at least as of November of 2021 when you were testifying

1 under oath at your deposition, you were not aware of anyone in
2 the legal department at PNC who had made any effort before the
3 lawsuit was filed to avoid using USAA patents. Correct?

4 A. I did not know one way or the other.

5 Q. And even now to this day, you're not aware of anyone at
6 PNC retail bank making any effort to avoid using the USAA
7 patents. Correct?

8 A. The retail bank would not understand patent law.

9 Q. So to be completely clear, on the entire retail side of
10 the bank, all the folks responsible for the mobile remote
11 deposit capture product, you're not aware of anyone at that
12 bank making an effort to avoid using the patents or to pay for
13 use of the patents. Correct?

14 A. No, they would not have the expertise to understand that.

15 Q. Thank you.

16 MS. GLASSER: I pass the witness.

17 THE WITNESS: Thank you.

18 THE COURT: Redirect?

19 MS. SMITH: Yes, Your Honor.

20 REDIRECT EXAMINATION

21 BY MS. SMITH:

22 Q. Now, Ms. Larrimer, you're not a lawyer. Correct?

23 A. I am not.

24 Q. And you're not an engineer.

25 A. I am not.

1 Q. If you could remind the jurors what the chief customer
2 officer and head of retail, what are your primary areas of
3 focus?

4 A. I'm an advocate for our customers within the bank, and I
5 make sure that the retail operation runs the branches and
6 everything.

7 Q. Now, Ms. Glasser talked to you and she went through a
8 number of documents and wanted to visit with you about the
9 importance of mobile remote deposit generally. Do you
10 remember her sorting through those documents with you?

11 A. Yes.

12 Q. Did she show you a single document with the word
13 'auto-capture' on it?

14 A. I do not recall that she did.

15 Q. Did she show you a single document mentioning showing a
16 check to a customer before deposit in the mobile app?

17 A. I do not recall that she did.

18 Q. And what's your understanding of what's being accused in
19 this lawsuit?

20 A. The two features you just mentioned--showing the copy of
21 the check to the customer as well as auto-capture.

22 Q. Now, Ms. Larrimer, you don't dispute that there's some
23 cost savings for PNC when a customer uses a mobile app
24 generally versus a teller, do you?

25 A. I do not dispute that.

1 Q. How are those cost savings impacted when a customer uses
2 the new version of the app that doesn't have auto-capture?

3 A. The cost savings are not impacted; it's the same. They
4 can still make a deposit.

5 Q. Okay. How are those cost savings impacted when a
6 customer uses the new version of the app but doesn't show the
7 customer photo of their check?

8 A. Likewise, they would not be impacted. They can still
9 process the deposit.

10 Q. Okay. Now, Ms. Glasser put up some big numbers on the
11 screen with you, and one that stuck in my mind, there was some
12 revenue numbers. Remember? I think they started with the
13 capital B. Do you remember that discussion?

14 A. I think the billion dollars was related to the dollar
15 amount of the checks that come through.

16 Q. Well, is there a difference between revenue and profits?

17 A. A big difference.

18 Q. And who -- that billion dollars that she was pointing at,
19 who does that money belong to?

20 A. The deposits belong to our customers.

21 Q. So if I have, let's say, a really wealthy person and they
22 make a million dollar deposit --

23 A. Uh-huh.

24 Q. -- does that make your app a million-dollar app?

25 A. Absolutely not. That's their money.

1 Q. If they -- if I deposit a hundred dollars, does it make
2 it a hundred-dollar app?

3 A. No.

4 Q. What impact does the amount of revenue deposited have on
5 the value of a mobile app to PNC?

6 A. It does not have any correlation to value.

7 Q. Okay. So a customer uses auto-capture to make a mobile
8 deposit and another customer uses their finger to manually,
9 you know, make the deposit, what impact does that have on
10 PNC's business, how they choose to make that deposit?

11 A. It does not have an impact between those two methods, and
12 we showed that through removing the automation and it stayed
13 the same.

14 Q. Now, you had a discussion with Ms. Glasser, and I think
15 it went like this: If PNC doesn't infringe the patents in
16 this suit, then they infringe some other patents. Do you
17 recall that discussion?

18 A. Yes.

19 Q. Is USAA claiming damages for the use of the new app that
20 we're hearing about in this lawsuit without the features?

21 A. No, they are not.

22 Q. Okay. You talked about the '571 Patent. Ma'am, is that
23 the patent or is that the feature that's been disabled, the
24 '571 --

25 A. The auto-capture?

1 Q. Yes.

2 A. Yes.

3 Q. All right. Do you -- do PNC customers have any ability
4 to enable that feature again?

5 A. They absolutely could not.

6 Q. Now, you spoke with Ms. Glasser about some App Store
7 complaints. Is there any relevance in your mind to the fact
8 that those were from an App Store versus someone speaking to
9 PNC directly?

10 A. When we see people comment on the App Store, those are
11 not people that have reached out to let us know they have a
12 complaint. There's no way to trace them. If you saw some of
13 the names on there, they're made-up names. So we -- any time
14 a customer would have a problem and call us, we would help
15 them through that problem and we would get it taken care of
16 for them. But the App Store complaints or comments, we can't
17 do anything directly because we don't know who they are.

18 Q. Okay. Is it fair to say that it's common to get a few
19 complaints when there is any change in technology?

20 A. Absolutely yes. Any time there is change, the number of
21 complaints go up because people are just confused by it or
22 frustrated.

23 Q. And I believe Ms. Glasser said she was looking at a
24 one-week window with you when she was reviewing those. Is
25 that correct?

1 A. I believe that's what she said.

2 Q. Well, what happened to the overall app rating after
3 4.20.1 launched?

4 A. It was shown the other day. Our app rating improved just
5 slightly, but it improved.

6 Q. Now, Ms. Larrimer, you were asked about the increase in
7 Reg E adjustments after version 4.20.1 launched. Do you
8 remember that conversation?

9 A. Yes, I do.

10 Q. What did PNC do in response to that increase?

11 A. So we saw an uptick and we hired eight additional
12 full-time people in order to handle those Reg E complaints.
13 So Reg E allows a customer to file a dispute with us. And so
14 the handling of that, I added staff to make sure that we met
15 our customers' requirements.

16 Q. Now, you said you saw an uptick. I just want to put it
17 in perspective for the jurors.

18 After 4.20.1, what percentage do the increased numbers of
19 adjustments and disputes represent of the total mobile
20 deposits at PNC?

21 A. .09 percent.

22 Q. And how does that .09 percent, how do the volumes of
23 these Reg E disputes and adjustments for mobile deposits
24 today, after version 4.20.1 was implemented, how do they
25 compare to the volume of Reg E disputes and adjustments that

1 PNC sees, for instance, on ATM technology that's been around
2 for a long time?

3 A. It's on par. It's at the same level.

4 Q. Okay. Thank you, Ms. Larrimer.

5 MS. SMITH: Your Honor, I'll pass the witness.

6 THE COURT: All right. Is there additional direct
7 -- excuse me, cross?

8 MS. GLASSER: Very briefly, Your Honor.

9 THE COURT: All right.

10 MS. GLASSER: Could we pull up PX 1, please? If we
11 could go to the second to last -- actually, I'm sorry. PX 2.
12 Yeah. If we could just go to the end of the patent where the
13 claims are at and pull up claim 12.

14 RECROSS EXAMINATION

15 BY MS. GLASSER:

16 Q. A couple of times you talked about the patented features
17 and you talked about just two little parts, which was the
18 presenting the photos and the auto-capture. Correct?

19 A. Correct.

20 Q. Now, those are important features, but those are not the
21 entire claim that's at issue in this case. Correct?

22 A. I don't know the details on that. Those are the two
23 features that I understand were accused.

24 MS. GLASSER: Let's go to the very end of the patent
25 then and pull up claim 12, please, so we can just make sure

1 we're all on the same page. There it is on the right-hand
2 side in the middle.

3 Q. (BY MS. GLASSER) So claim 12, in fact, includes the
4 entire system for mobile deposit. Correct?

5 MS. GLASSER: You can go a little farther down with
6 the zoom-in, please.

7 THE WITNESS: It starts out saying 'a system', but I
8 don't understand patents myself.

9 Q. (BY MS. GLASSER) You understand that in the United
10 States juries decide fact issues of patent infringement.
11 Correct?

12 A. Correct.

13 Q. And these are factual questions that were guided by the
14 Court with their claim constructions and by expert testimony.
15 Correct?

16 A. Correct.

17 Q. And so armed with the same information that the rest of
18 us have available, at least the folks who aren't lawyers, you
19 can read on the page and understand that this is a system for
20 mobile deposit that includes much more than just the step of
21 presenting the photos. Correct?

22 A. I haven't read the whole thing, but there is a lot of
23 information there.

24 Q. And you roughly recall, at least from Professor Conte's
25 testimony and from the testimony of the inventor of the

1 patents, that all of the USAA patents are this way, they all
2 encompass either the complete suite of software or the total
3 mobile remote deposit system. Correct?

4 A. I heard that stated.

5 Q. Now, just briefly, you were sort of making a distinction
6 I think in the testimony between App Store comments and
7 complaints where people pick up the phone and call the bank.
8 Is that right?

9 A. Yes.

10 Q. The App Store is where the majority of PNC's customers
11 obtain the app. Correct?

12 A. The App Store is where you would go to get the app.

13 Q. And then, additionally, you mentioned that the overall
14 rating shortly after the app was released for the entire
15 mobile application went up a little bit. Do you recall that?

16 A. Yes.

17 Q. Have you taken a look at what the data is for just the
18 customers who are submitting a comment about mobile deposit?

19 A. I have not. I don't know if that's even possible.

20 Q. Would you be surprised to know that if one went through
21 that and they did a search for just the comments on mobile
22 deposit, there is actually a substantial decline in ratings
23 after the release of the new product?

24 A. I can say I would not be surprised about seeing that
25 after the change was made because customers were going through

1 that change. So that would not surprise me.

2 Q. Thank you.

3 MS. GLASSER: I pass the witness.

4 THE COURT: Is there further direct examination?

5 MS. SMITH: Please, Your Honor.

6 THE COURT: Please proceed.

7 REDIRECT EXAMINATION

8 BY MS. SMITH:

9 Q. Ms. Larrimer, how often do you have an occasion to read a
10 patent, aside from what you just read?

11 A. I have never in my life had that opportunity.

12 Q. And Ms. Glasser said you were, quote, armed with the same
13 information as the jurors. You have not -- you don't have
14 claim constructions in front of you, as the jurors do in their
15 notebooks. Correct?

16 A. No, I do not.

17 Q. Okay. You rely upon experts for that type of technical
18 information. Correct?

19 A. Yes.

20 Q. And we're about to hear from some of PNC's experts today,
21 are we not?

22 A. Yes, we are.

23 Q. And they'll be able to answer the questions that you
24 couldn't answer for Ms. Glasser. Correct?

25 MS. GLASSER: Objection; leading, Your Honor.

1 THE COURT: It is a leading question. I'll permit
2 it.

3 THE WITNESS: Yes.

4 MS. SMITH: That's all I have, Your Honor. Thank
5 you.

6 THE COURT: All right. Do you have anything further
7 of this witness, Ms. Glasser?

8 MS. GLASSER: No, Your Honor.

9 THE COURT: Then you may step down, Ms. Larrimer.

10 THE WITNESS: Thank you, Your Honor.

11 THE COURT: You're quite welcome.

12 Ladies and gentlemen, it's been almost two hours since we
13 came back from lunch. We're going to take a short recess.

14 You can simply close and leave your notebooks in your
15 chairs, follow all my instructions, including not discuss the
16 case among yourselves, and we'll be back in here shortly to
17 continue with the next Defense witness.

18 The jury's excused for recess at this time.

19 (Whereupon, the jury left the courtroom.)

20 THE COURT: Court stands in recess.

21 (Brief recess.)

22 THE COURT: Be seated, please.

23 All right. Is the Defendant prepared to call its next
24 witness?

25 MR. LANTIER: Defendant is prepared, Your Honor.

1 THE COURT: All right. Let's bring in the jury
2 then.

3 (Whereupon, the jury entered the courtroom.)

4 THE COURT: Welcome back, ladies and gentlemen.
5 Please be seated.

6 Defendant, call your next witness.

7 MR. LANTIER: Your Honor, PNC Bank calls Professor
8 Alan Bovik.

9 THE COURT: All right. If Professor Bovik would
10 come forward and be sworn, please.

11 (Whereupon, the oath was administered by the Clerk.)

12 THE COURT: Please come around, have a seat on the
13 witness stand.

14 All right, counsel. You may proceed with direct
15 examination.

16 MR. LANTIER: Thank you, Your Honor.

17 ALAN BOVIK, PhD, SWORN,
18 testified on direct examination by Mr. Lantier as follows:

19 Q. Good afternoon, Professor Bovik.

20 A. Good afternoon.

21 Q. Could you please introduce yourself to the jury?

22 A. Yes. My name is Alan Bovik.

23 Q. What is your profession?

24 A. I am a professor at the University of Texas at Austin.

25 Q. For how long have you been a professor?

1 A. Thirty-eight years.

2 Q. During that time, have you always lived in the Austin
3 area?

4 A. Well, you know, after I graduated from my schooling in
5 Illinois, I moved to Austin and became a professor at UT. But
6 I landed in Buda, Texas, which is a very tiny town about 25
7 miles outside of Austin, and I lived there for 15 years. And
8 then the traffic got too intense because of all the housing
9 developments and we moved into town so my wife and I didn't
10 have to drive for an hour every day each way.

11 Q. And what are you here to testify about primarily?

12 A. Regarding the possible infringement by PNC of the USAA
13 patents.

14 Q. Are you an employee of PNC Bank?

15 A. I am not.

16 Q. How many times have you testified as an expert in cases
17 involving PNC Bank prior to this lawsuit?

18 A. I never have.

19 Q. What financial interest do you personally have in the
20 outcome of this dispute?

21 A. I have none.

22 Q. And what are you being -- how are you being compensated
23 for the time you spent analyzing the issues in this case?

24 A. I am being compensated for the time I have spent at my
25 usual rate of \$500 an hour which I have maintained for the

1 past 20 years.

2 Q. Have you prepared some slides to assist with your
3 testimony today?

4 A. I have.

5 MR. LANTIER: Could we please call up DDX 6.101,
6 please, and if we could advance to the second slide, please,
7 Mr. Nickels.

8 Q. (BY MR. LANTIER) What is your educational background,
9 Professor Bovik?

10 A. Well, I received all my degrees, Bachelor's, Master's,
11 and Ph.D., in electrical and computer engineering at the
12 University of Illinois. In 1984 is when I finished all of
13 those.

14 Q. And you've been a professor at UT since then?

15 A. That is correct.

16 Q. What courses do you teach at UT?

17 A. Well, I teach classes -- in the fall semester I taught a
18 class entitled Digital Image Processing. And the current
19 semester that's just coming to completion now, I just taught a
20 course entitled Digital Video.

21 MR. LANTIER: If we could please advance to slide 3.

22 Q. (BY MR. LANTIER) Has any of your work been published?

23 A. A lot of it. I've written more than 900 technical
24 papers, articles, books, and patents over the years.

25 Q. And do you recall yesterday that Doctor Conte emphasized

1 that he's something called an IEEE Fellow?

2 A. Yes.

3 Q. Are you also an IEEE Fellow?

4 A. Yes. I was made an IEEE Fellow in 1995.

5 Q. Could you explain to the jury a little bit about the type
6 of research that you've done?

7 A. Yes. I do research in the area of image and video
8 engineering. I'm the director of the laboratory for image and
9 video engineering in Austin, have been for those 38 years that
10 I've been there. And the kind of research I do is directed
11 towards, well, very broadly those areas, but more specifically
12 streaming video, wireless video, video quality, picture
13 quality, digital photography and cameras, and many other
14 similar areas like that.

15 Q. And have you worked with any companies that ordinary
16 people would have heard of through your research?

17 A. I work with many companies and have for many, many years.
18 A couple of ones I'm working with now include Netflix, who
19 I've worked with for many years; also, YouTube, you may have
20 heard of, who I've been working with for many years.

21 MR. LANTIER: Mr. Nickels, if we could please
22 advance to the next slide.

23 Q. (BY MR. LANTIER) Could you give an example of some of
24 the recognition that you've received over the course of your
25 career?

1 A. Sure. Well, I mentioned that my research is in the area
2 of streaming video. Part of that work is -- that I've done
3 over the years is to create new theories of how human beings,
4 like all of us here, perceive the quality of pictures and
5 videos. Nothing like that had been done successfully before.
6 And these were adopted soon by the television industry en
7 masse. And for that, I received a couple of Emmy awards so
8 far, including a primetime Emmy award for outstanding
9 achievement in engineering development.

10 MR. LANTIER: And if we advance the slide to slide
11 5, please.

12 Q. (BY MR. LANTIER) Could you give one more example of
13 recognition you've received?

14 A. Yes. Just last weekend, I was in San Diego to receive
15 the IEEE Edison Medal.

16 Q. And who's that named after?

17 A. It's named after Thomas Edison, who was an electrical
18 engineer who invented the lightbulb and is also known as the
19 father of motion pictures, the field I work in.

20 I'm especially happy about this medal because it's given
21 by my peers.

22 Q. How many people per year are awarded the Edison Medal?

23 A. Exactly one since around 1909.

24 MR. LANTIER: And we can go ahead and take the
25 slides down for a moment, Mr. Nickels.

1 Q. (BY MR. LANTIER) Professor Bovik, have you ever worked
2 at a bank?

3 A. I never have.

4 Q. How does your work relate to remote check deposit?

5 A. Well, an issue in this case is remote check deposit, and
6 that involves taking pictures, in this case of checks, and
7 then transmitting those pictures over a wireless link to some
8 remote location. This is exactly the field that I've been
9 working in for decades now.

10 MR. LANTIER: Your Honor, at this time PNC Bank
11 moves to admit Professor Bovik as an expert in the field of
12 digital image processing and transmission.

13 THE COURT: Is there objection?

14 MR. SHEASBY: No objection, Your Honor.

15 THE COURT: Without objection, the Court will
16 recognize this witness as an expert in those designated
17 fields. Please continue.

18 MR. LANTIER: Thank you, Your Honor.

19 Q. (BY MR. LANTIER) Professor Bovik, one more time can you
20 remind us what you've been asked to do in this case?

21 A. Well, again, it's to study the issues and, you know, form
22 my own opinions and conclusions regarding possible
23 infringement of the patents at issue in this case.

24 MR. LANTIER: And if we could call up the slides
25 again. Thank you, Mr. Nickels.

1 Q. (BY MR. LANTIER) Professor Bovik, what process did you
2 go through in performing your independent evaluation of those
3 issues?

4 A. Well, the process I went through was to, of course, as
5 soon as I was engaged, to ask for and to study the patents in
6 the case. That includes the entire specifications of those
7 patents, all the claims that were claimed.

8 Since claims have special terms in them that have special
9 meaning that the parties don't always agree upon and which
10 have bearing on the case, the Judge issues a claim
11 construction order, which I then read and understood. And
12 throughout the remainder of my analysis, I tried to apply that
13 understanding to everything, every opinion, every conclusion,
14 that I came to.

15 I studied the PNC mobile app. That includes the accused
16 app, the original app where I studied all of the available
17 technical documentation regarding that app.

18 I also operated PNC's version 4.20.1 app. I downloaded
19 it, I operated it, I used it to capture check images, I formed
20 an account on PNC which I didn't have before. So I
21 experienced the, you know, the whole app experience.

22 So I basically compared all of the, you know, evidence
23 against the claims in forming all of my opinions and all the
24 conclusions that I'll be describing to you going forward.

25 This includes, also, everything I've heard in the form of

1 prior depositions, transcripts of those depositions, the
2 written word, the expert reports of the various experts in
3 this case and fact witnesses, and of course including Doctor
4 Conte's opinions in this case, both those that were written,
5 expressed before, and in this courtroom.

6 Q. Professor Bovik, in performing your analysis, did you
7 consider all of the evidence that Doctor Conte identified as
8 relevant to his opinions?

9 A. I did.

10 Q. And that would have included the documents and the source
11 code that he identified. Is that right?

12 A. That is correct.

13 MR. LANTIER: If we could turn to the next slide,
14 please.

15 Q. (BY MR. LANTIER) What perspective did you use in
16 evaluating the issues in this case?

17 A. I used the perspective of a person of ordinary skill in
18 the art who I define to have a Bachelor's degree in electrical
19 engineering, computer science, computer engineering, or some
20 equivalent field, and to have a couple of years of experience,
21 at least, of image scanning technology involving transferring
22 and processing of image data to and at a server.

23 Q. Is there any dispute between you and Doctor Conte as to
24 what the right level of skill in the art is?

25 A. Our definitions are very similar and under either

1 definition, either that Doctor Conte's or my own, my opinions
2 remain the same on everything that I'll be testifying about
3 and have testified about.

4 Q. Sir, were you a person of ordinary skill in the art as of
5 2006?

6 A. I was, but I had far more experience at that time. I had
7 a Ph.D. degree, for example, and I'd also conducted, you know,
8 decades of research in the field of image and video processing
9 and had been teaching classes in those fields and was heavily
10 engaged in industry.

11 MR. LANTIER: If we could call up the next slide.

12 Thank you, Mr. Nickels.

13 Q. (BY MR. LANTIER) Could you remind the jury which patents
14 you analyzed?

15 A. Yes. You'll notice that there is a -- if you look at the
16 slide, there's a division into two halves. On the left are
17 what have been referred to as the 2006 patents, the '432, the
18 '681, and the '605. We might also think of them as the mobile
19 phone check image patents.

20 On the right is the '571 Patent, which we've been
21 referring to as the 2009 patent and which we could also think
22 of as the auto-capture patent.

23 Q. Professor Bovik, would it be okay with you if we started
24 the discussion first with the accused PNC app?

25 A. Yes.

1 Q. And this is the one that was --

2 MR. SHEASBY: Your Honor, may we approach?

3 THE COURT: Approach the bench.

4 (The following was had outside the hearing of the
5 jury.)

6 MR. SHEASBY: It was accused PNC product. That's
7 what we agreed to in the hearing, not the accused PNC app.

8 MR. LANTIER: It's just a misstatement, Your Honor.
9 I can rephrase the question as the product.

10 THE COURT: All right. How are the slides?

11 MR. LANTIER: The slides are fixed as Your Honor has
12 ordered.

13 THE COURT: Then let's proceed.

14 (The following was had in the presence and hearing
15 of the jury.)

16 Q. (BY MR. LANTIER) Professor Bovik, I don't remember if
17 you answered that question or not so I'm going to restate it.

18 Would it be okay with you if we first discussed your
19 conclusions regarding PNC's accused product?

20 A. That would be fine.

21 Q. And this is the one that was taken out of service
22 beginning in May of 2021. Is that right?

23 A. That is correct, yes.

24 MR. LANTIER: If we could please advance the slides.

25 Q. (BY MR. LANTIER) And we'll start with the '432 Patent.

1 Would that be okay with you?

2 A. Yes.

3 Q. Which claims of the '432 Patent are asserted?

4 A. 1, 3, 5, and 21.

5 Q. Have you reached a conclusion as to whether PNC's mobile
6 app -- excuse me, PNC's -- PNC has infringed that patent?

7 A. Through my analysis, I have concluded that it does not
8 infringe any of those claims.

9 Q. And to which of your -- just to be clear, to which of the
10 asserted claims do your opinions apply?

11 A. All of those.

12 MR. LANTIER: Let's please advance to the next
13 slide.

14 Q. (BY MR. LANTIER) Professor Bovik, could you explain one
15 reason for your conclusion?

16 A. Yes. So this is claim 1 of the '432 Patent. You'll
17 notice it has an awful lot of language, a lot of limitations,
18 so I've highlighted a couple of elements of those limitations,
19 one of which states, A mobile device to perform.

20 The other is checking for errors before the submitting
21 step. So a requirement of the patent is that a mobile device
22 performs checking for errors before the submitting step.

23 MR. LANTIER: If we could please advance the slides,
24 Mr. Nickels.

25 Q. (BY MR. LANTIER) Professor Bovik, can you explain what

1 you're showing on this slide?

2 A. Yes. What you'll see here is a mobile device. Let's
3 suppose it's situated here in Marshall, Texas. In Greenfield,
4 Virginia, are the back-end server computers of PNC. That's a
5 thousand miles away. They communicate by wireless, of course.

6 So when somebody takes a picture or pictures of the
7 checks that they want to deposit, there is no checking for
8 errors of that check image at all on that device. Instead,
9 the image is sent as-is without being examined to --

10 THE COURT: Just a minute. What is it, counsel?

11 MR. SHEASBY: I have an objection; violation of
12 court order.

13 THE COURT: Do you want to specify more specifically
14 what you're objecting on the basis of?

15 MR. SHEASBY: Yes. The claim doesn't require
16 checking image for an error, and Professor Bovik is forbidden
17 from giving an opinion as a basis for that opinion.

18 MR. LANTIER: Your Honor, that is not correct.

19 THE COURT: All right, counsel. Approach the bench.
20 (The following was had outside the hearing of the
21 jury.)

22 THE COURT: What are you showing me, Mr. Sheasby?

23 MR. SHEASBY: Doctor Bovik argued that the claim
24 requires checking for an error on an image in his report, and
25 Judge Payne struck that portion of his report because the

1 claims are not construed or limited to checking for an error
2 on an image.

3 So if he wants to say it doesn't check for an error,
4 that's fine. But any reference to not checking, Your Honor,
5 of the image is a clear violation of the motion to strike.
6 That portion of his report has been stricken.

7 THE COURT: Then your objection is he's testifying
8 beyond the scope of his expert report because what you're
9 alleging, what you're saying he's testifying to, was struck by
10 Judge Payne as a part of the *Daubert* process during pretrial.

11 MR. SHEASBY: I amend my objection as instructed,
12 Your Honor.

13 THE COURT: What's your response, Mr. Lantier?

14 MR. LANTIER: Your Honor, Magistrate Judge Payne at
15 their request struck two paragraphs, and I don't believe that
16 he's testifying as to what's in those two paragraphs. He is
17 permitted to testify as to the remainder of his opinion
18 regarding checking for errors, and he's just providing the
19 testimony that there's no checking for errors that occurs on
20 the mobile device.

21 MR. SHEASBY: He is not. He's saying there's no
22 checking for errors of the image. That's what he should not
23 be saying. That is not a claim limitation. It's --

24 MR. LANTIER: Okay. It's --

25 THE COURT: Look, I don't have Doctor Bovik's

1 opinion memorized. I didn't conduct the pretrial as you both
2 know. I am happy to send this jury out, I'm happy to get
3 Judge Payne's order in front of me together with the current
4 version of his report, and we'll get to the bottom of this.
5 That's the only way I can handle it.

6 MR. SHEASBY: Your Honor, I think --

7 THE COURT: One at a time up here, please. One at a
8 time up here. Go ahead, Mr. Sheasby.

9 MR. SHEASBY: The solution is -- I think the
10 solution is for him to just say -- to stop talking about
11 checking for errors on images. That's not relevant, it's not
12 a claim limitation, and he shouldn't be talking --

13 THE COURT: Your specific problem is with images,
14 not the inability to check for errors.

15 MR. SHEASBY: He can say checking for errors all he
16 wants. He should not speak about checking for errors on
17 images. That was not the Court's construction.

18 THE COURT: Just a minute. What's your position,
19 Mr. Lantier?

20 MR. LANTIER: Two points, Your Honor. I don't have
21 the realtime. So if he did say checking for errors on the
22 image, I would be willing to go back and make -- ask him to
23 clarify that he's not saying that the error has to be an error
24 on the image.

25 However, the -- it is not the case that he can't use the

1 word 'image' in his testimony. We discussed this extensively
2 at the *Markman* hearing. Your Honor said that the error is one
3 you thought would relate to the check image, but it does not
4 need to be an error on the check image. I can't -- I don't
5 have the answer because I don't have the realtime in front of
6 me, but if Your Honor does and he said check for an error on
7 the check image, I'd be willing to ask to clarify that.

8 THE COURT: Here's the issue at present.
9 Plaintiff's counsel is saying that the witness has gone beyond
10 the scope of his circumscribed report that came through the
11 *Daubert* process by saying that the PNC-accused product does
12 not check for errors on the image.

13 Now, if you dispute that, I'll be glad to get the report
14 and we'll get the jury out of here and I'll give you an
15 answer. If you don't dispute that, then you need to clarify
16 that with the witness that it's not the image it's checking
17 for errors.

18 Now, you tell me what you're willing to do, and we'll go
19 forward.

20 MR. LANTIER: Sure. Did you hear the witness
21 state --

22 MR. SHEASBY: He said it.

23 MR. LANTIER: Then allow me to clarify, please, with
24 the question, and I think we can move on.

25 THE COURT: All right. So you're going to clarify

1 it, I'm not going to send the jury out, we're not going to get
2 the reports out.

3 MR. SHEASBY: I think the only issue is that he
4 should just clarify the claims don't require checking for
5 errors on the image. That's all he needs to do.

6 MR. LANTIER: I'm just going to ask him, did you
7 intend to suggest the error needs to be an error on the image?

8 MR. SHEASBY: That's perfect.

9 THE COURT: Let's go forward.

10 (The following was had in the presence and hearing
11 of the jury.)

12 THE COURT: All right. Let's proceed.

13 Q. (BY MR. LANTIER) Professor Bovik, in your prior answer,
14 did you mean to suggest that you understood that the error has
15 to be an error on the image?

16 A. No. I believe I stated or meant to state that an error
17 related to the image of the check.

18 MR. SHEASBY: Your Honor, may we approach again?

19 THE COURT: Let's do this. Ladies and gentlemen, I
20 need to get this resolved between the attorneys in this case,
21 and it may take referencing some materials I don't have in
22 front of me.

23 I'm going to ask you to step into the jury room for a few
24 minutes so that I can resolve this outside your presence.
25 Simply close and leave your notebooks in your chairs, please,

1 follow all my instructions, and we'll have you back in here
2 just as soon as we can.

3 Thank you.

4 (Whereupon, the jury left the courtroom.)

5 THE COURT: Be seated, please.

6 All right. Mr. Sheasby, you have a continuing objection?

7 MR. SHEASBY: Yes, I do.

8 THE COURT: I hope you did because I just sent the
9 jury out.

10 MR. SHEASBY: I absolutely do.

11 THE COURT: Tell me what your problem is and let's
12 get to the bottom of it.

13 MR. SHEASBY: So Doctor Bovik has a portion of his
14 report where he says that the checking for errors has to be
15 related to an image and, because of that, checking for errors
16 before the image is captured is not sufficient. That opinion
17 has been expressly stricken by Judge Payne at Docket 592 on
18 pages 13 through 14. The "related to a check image" is not in
19 this Court's claim construction and that what just happened
20 there was an express violation of Judge Payne's order.

21 THE COURT: All right. I have the document by
22 chance, since we've already dealt with this on other issues, I
23 have this same order in front of me, or this report and
24 recommendation. Let me read this section on pages 13 and 14.
25 Then I'll hear from Mr. Lantier.

1 MR. LANTIER: Your Honor, Magistrate Judge Payne's
2 order struck two paragraphs --

3 THE COURT: Let me finish reading the section, and
4 then I'll be glad to hear from you.

5 MR. LANTIER: Oh. My apologies, Your Honor.

6 THE COURT: All right. Let me hear from you now,
7 please, Mr. Lantier.

8 MR. LANTIER: Yes, Your Honor.

9 Magistrate Judge Payne's order struck paragraphs 132 and
10 133 of Doctor Bovik's expert report. And the basis for him
11 striking it was he found that in those paragraphs, that Doctor
12 Bovik had necessarily restricted relating to the customer's
13 deposit limits to aspects of the check image itself, which is
14 inconsistent with the Court's claim construction.

15 Doctor Bovik included in his opinion a number of
16 additional paragraphs, at paragraphs 134 and following, that
17 related to his opinions and set them forth on checking for
18 errors. And in several of those paragraphs, he gave the -- in
19 multiple of those paragraphs, he gave the testimony that he
20 just gave. For example, in paragraph 136, which was not
21 stricken, he said that, because the customer's mobile device
22 performed the comparison before any image of the check
23 existed --

24 THE COURT: Just a minute. Where are you reading
25 from his report now?

1 MR. LANTIER: It's upon page 61 at paragraph 136,
2 Your Honor.

3 THE COURT: Give me just a second. Okay. I'm at
4 paragraph 136.

5 MR. LANTIER: Yes, Your Honor.

6 So the paragraph says, because the customer's mobile
7 device performed the comparison before any image of the check
8 existed, the customer's mobile device's performance of the
9 comparison was not related to the image of the check.
10 Therefore, the comparison did not constitute the customer's
11 mobile device's checking for errors as claimed in the '432
12 Patent.

13 THE COURT: So tell me, as precisely as you can,
14 what is it you intend to elicit from this witness on this
15 subject. And then I'll hear any objection to the same in
16 light of the circumscribed expert report from Plaintiff's
17 counsel.

18 MR. LANTIER: Yes, Your Honor.

19 Doctor Bovik -- I expect that Doctor Bovik will provide
20 testimony that there are -- that Doctor Conte had raised two
21 types of checking for errors that he said met the claim
22 requirements and that Professor Bovik will refute each of
23 those positions.

24 The first position is that Professor Conte indicated that
25 analyses that take place on the server computers remote from

1 the mobile device were checking for errors on the mobile
2 device, and I expect that Professor Bovik will respond to that
3 opinion and -- and offer his conclusion that the error
4 checking that Professor Conte talked about yesterday in that
5 regard occurred in Greenfield, Virginia, not -- on server
6 computers, not on the mobile device.

7 The second, Your Honor, is that Professor Conte offered
8 an opinion that a -- what's called a velocity limits check
9 which is where before there's any photograph of the check
10 taken, the customer enters an amount the customer would like
11 to deposit and the phone lets the customer know whether they
12 are allowed to deposit that amount of money, whether that was
13 checking for errors.

14 And there Professor Bovik will say it is not; that is a
15 check to see if the customer is permitted to deposit that
16 amount of money and, in fact, if the customer is determined to
17 be exceeding or trying to exceed that limit, then the
18 customer's not permitted to take an image of the check by the
19 software.

20 THE COURT: All right. Obviously I don't have a
21 problem with Professor Bovik testifying within the scope of
22 his report as circumscribed during the pretrial process, but
23 what I want to have an understanding of is where the clear
24 lines are.

25 Mr. Sheasby, let me hear from you in light of what I've

1 just been told.

2 MR. SHEASBY: Yes. So the first analysis about the
3 server issue is something he can give and --

4 THE COURT: That came up during Doctor Conte's
5 cross-examination. I recall that.

6 MR. SHEASBY: Yes. The server is no problem at all.
7 This is the two paragraphs that were stricken -- expressly
8 referenced by Judge Payne as being stricken. And, in
9 addition, he struck the subject matter at the end of this
10 section. This is the other argument. So the PNC app caused
11 the mobile -- because when the customer amount is entered to
12 be deposited, the PNC app evaluated whether the deposited
13 amount --

14 THE COURT: Slow down, please.

15 MR. SHEASBY: -- the deposited amount would cause
16 the user to exceed the applicable deposit elements.

17 And then in paragraphs 133, he said, well, that's not
18 infringement because the claim construction order states that
19 the term checking for errors refers to an error related to the
20 check image. That is the argument that Professor -- that
21 Judge Payne struck expressly. And the idea that, because
22 Judge Payne didn't write every word, that that argument pops
23 up, they can evade his order. He expressly struck the exact
24 argument they are proposing to make.

25 Related to doesn't appear in Your Honor's claim

1 construction and, in fact, in the claim construction in PNC 3
2 you expressly rejected adding that limitation.

3 This is in my mind a clear evasion of Judge Payne's
4 order.

5 THE COURT: All right. I understand the essence of
6 Judge Payne's order to have struck paragraph 133 because
7 Professor Bovik's report in paragraph 133 improperly conflates
8 checking for errors with checking for errors related to the
9 check image.

10 MR. SHEASBY: Exactly right.

11 THE COURT: Now, here's my question. Checking for
12 errors cannot be so narrowed and limited to mean only checking
13 for errors related to the check image, but does checking for
14 errors include the possibility of checking for errors on the
15 image as well as checking for other kinds of errors?

16 It's clear the witness can't narrow the claim
17 construction, and the Court was proper to strike that opinion.
18 But do I have some guidance as to what the boundaries of
19 checking for errors does mean?

20 MR. SHEASBY: Yeah. So he can say, It's not
21 checking for errors. But he can't say, It's not checking for
22 errors because it's not related to the check image.

23 So I'm not objecting at all if Professor Bovik wants to
24 say that this is not checking for an error. That would not be
25 narrowing the Court's claim construction. It would not be

1 violating Judge Payne's *Daubert* motion. But for him to say
2 checking for errors related to the image is surreptitious
3 claim construction and it's express violation of what Judge
4 Payne struck.

5 So he should just say it's not checking for errors, in
6 the same way I asked previously from counsel not to say it
7 needs to be checking for errors on the image.

8 THE COURT: Let me ask you this. My understanding
9 of the claim construction order is that checking for errors
10 was not expressly construed; therefore, it's to have its plain
11 meaning, notwithstanding the Court's order striking paragraph
12 133 from Doctor Bovik's report.

13 MR. SHEASBY: Yeah. So that's right. And I have no
14 problem if he said that --

15 THE COURT: Here's my question. Does Professor
16 Bovik in his report in a portion that's not struck opine that
17 the plain and ordinary meaning of checking for errors, while
18 not limited to only checking on the image, could include
19 checking for errors on the image? Is there any such opinion
20 in his report that you're aware of?

21 Is there any such opinion in his report that you're aware
22 of, Mr. Lantier?

23 MR. LANTIER: Your Honor, not stated in those words
24 because he was trying to follow Your Honor's statements in the
25 claim construction order when he gave the opinion in 133.

1 Your Honor had said, it can't just be a server connection
2 error; it has to be somehow related to the check image. But
3 you did enter the plain meaning that was requested by the
4 Plaintiff. So he was just trying to apply Your Honor's claim
5 construction faithfully.

6 But if we look, for example, at paragraph 136, Your
7 Honor, of the report, he offers the opinion -- and this
8 was -- the Plaintiff has never sought to strike this opinion,
9 that the velocity limits check is not checking for errors
10 because, at the time that check occurs, there is no image of
11 the check. So it's not within the meaning of what checking
12 for errors is in the '432 Patent, and nobody's ever asked to
13 strike that paragraph.

14 THE COURT: I don't see anything about velocity in
15 paragraph 136.

16 MR. LANTIER: Oh. Mr. Sheasby's computer is on my
17 copy of the order, Your Honor, but -- or my copy of the
18 report, but I think what he says at 136 --

19 THE COURT: I have 136 in hard copy form right in
20 front of me, and it's only four lines long. It says, Because
21 the customer's mobile device performed the comparison before
22 any image of the check existed, the customer's mobile device's
23 performance of the comparison was not related to the image of
24 the check. Therefore, the comparison did not constitute the
25 consumer's mobile device's checking for errors as claimed in

1 the '432 Patent.

2 That's the totality of paragraph 136.

3 MR. LANTIER: Yes, Your Honor. I'm sorry. I
4 couldn't see it at the time I said that.

5 The reference there to the comparison is the comparison
6 that, if you go back to the image on the prior page, do you
7 see there's that purple diamond, Your Honor? It says, Within
8 RDC velocity limits, question mark.

9 THE COURT: I see it.

10 MR. LANTIER: That that's the comparison he's
11 referring to when he says 'the comparison' in paragraph 136.

12 MR. SHEASBY: So, Your Honor, let me get as precise
13 to the point. Question -- this is what he elicited to him
14 after my objection.

15 Question: Did you need mean to suggest --

16 THE COURT: Slow down and get to the microphone,
17 please.

18 MR. SHEASBY: Question: Did you mean to suggest
19 that the error has to be an error on the image?

20 No. I believe or stated or meant to state an error
21 related to the usage of the check. So it has to be related to
22 the use of the check -- usage of the check image.

23 That's the argument he's making.

24 He can say that this amount -- checking for this amount
25 is not an error checking. He cannot say it -- it doesn't

1 infringe because it's not related to the check image. He did
2 not give a plain and ordinary meaning of checking for error in
3 his report. And the idea, that concept that it has to be
4 related to the image and that this -- this concept, this app,
5 doesn't relate to the image has been expressly struck by Judge
6 Payne.

7 So I'm not trying to circumscribe him from saying, this
8 is not an error. He just -- he can't surreptitiously narrow
9 it by saying the error must be related to a check image. That
10 is not the construction. Your Honor, in PNC 3, expressly
11 declined to give it that construction.

12 THE COURT: There's no doubt, pursuant to the claim
13 construction order and Judge Payne's order entered at
14 pretrial, that the witness can't narrow checking for errors to
15 be only checking for errors of the image. That's clear, and
16 I'm not going to permit any testimony to that effect.

17 The part that's not clear is the Court's clearly said
18 that checking for errors is to be given its plain and ordinary
19 meaning. Now, if this witness elsewhere in this report has
20 included an opinion as to what the plain and ordinary meaning
21 of checking for errors is, he'll be permitted to testify to
22 that. If he hasn't included an opinion as to the plain and
23 ordinary meaning of checking for errors, he's not going to
24 make one up in the middle of the trial.

25 MR. SHEASBY: And he hasn't, and I know this because

1 I asked him in his deposition and he refused to provide a
2 meaning of checking for errors.

3 THE COURT: Is it your position, Mr. Lantier, that
4 this witness anywhere in his report sets forth an opinion as
5 to the plain and ordinary meaning of checking for errors? If
6 so, specify it for me where it is.

7 MR. LANTIER: Yes, Your Honor. I think an
8 example -- it's throughout his report. He does not have a
9 sentence in his report that says, the plain -- in my opinion
10 the plain and ordinary meaning of checking for errors is the
11 following.

12 And I have to say, what the Plaintiff's done here has not
13 proposed any construction and now we're at trial and he's
14 asking for our expert to be precluded from giving the exact
15 opinions that are in his report because he didn't include a
16 sentence that says the plain and ordinary meaning is in a
17 post-Markman claim construction report.

18 Clearly, when he gave his opinion at paragraph 136, that
19 a remote -- the RDC velocity limit check is not checking for
20 errors within the '432 Patent claim, he is applying the plain
21 meaning. He's been very clear in his report that for all
22 terms that were non-construed otherwise, he applied the plain
23 meaning.

24 MR. SHEASBY: This is Doctor Bovik's testimony under
25 oath at his deposition.

1 "So it says checking for has its plain meaning. Do you
2 see that?

3 "I do."

4 I'm asking about Your Honor's claim construction.

5 "What is the plain meaning of checking for error?"

6 Answer: "Again, you know, by asking me to give a plain
7 meaning, you're actually asking me to reconstrue the term
8 checking for errors."

9 And then he went on for minutes after minutes to
10 absolutely refuse to explain what the plain meaning of
11 checking for errors is.

12 MR. LANTIER: Your Honor --

13 MR. SHEASBY: And this is testimony under oath.

14 THE COURT: All right. Well, here's the problem I
15 have, Mr. Lantier. I don't necessarily think the witness
16 should be held to having a single precise sentence that says
17 the plain and ordinary meaning of checking for errors is X.
18 But I don't think you can say he doesn't have any expression
19 in his report of what the plain and ordinary meaning of
20 checking for errors is and that everything else that he opines
21 in his report assumes it applies the plain and ordinary
22 meaning, and so all his opinions are plain and ordinary
23 meaning, and it just flows throughout and permeates his report
24 and therefore he can say it.

25 It's got to be more specific than just the theme and flow

1 throughout his report. It's got to be something that tells me
2 what his opinion of the plain and ordinary meaning of that
3 language is, not the examples from what his ultimate opinions
4 are.

5 And if there's something in here, not perhaps a single
6 precise sentence, but something tangible that gives the
7 Court -- gives the Court fair notice of what this expert's
8 actual opinion is of the plain and ordinary meaning of that
9 language, I want to know about it because, without that, he's
10 not going to say that checking for errors is limited to
11 checking for errors on the image. That's precluded. That's
12 out.

13 MR. LANTIER: Yes, Your Honor.

14 THE COURT: The door that may or may not still be
15 open is, because the Court applied the plain and ordinary
16 meaning to checking for errors, he might be able to opine as
17 to what that plain and ordinary meaning is, but he can't opine
18 on it in his testimony before this jury if he didn't set it
19 out in his report in some fashion.

20 It can't just be, well, you read this opinion and you can
21 see that was his assumption. It's got to be something that
22 would put the Court on notice of what to look for. And that's
23 what I'm asking you to point me to --

24 MR. LANTIER: Yes, Your Honor.

25 THE COURT: -- if it's there to point to.

1 MR. LANTIER: So the way he moved through this was
2 to set forth the claims -- the Court's claim construction.
3 And he says, in the stricken paragraph, I'll grant you, but I
4 just want to explain how this report was set forth.

5 The Court's claim construction states that the checking
6 for errors refers to an error related to the check image,
7 which was true of Your Honor's claim construction order. I
8 understand that Your Honor did use the construction of plain
9 meaning, but that is what Your Honor has said in the report
10 itself.

11 And then he used that as a plain meaning and -- and
12 incorporated that because he agreed with it in paragraph
13 136 -- 134 to 136, but we can focus on that paragraph 136,
14 Your Honor, where he says, because the mobile -- the
15 customer's mobile device performed the comparison before any
16 image of the check existed, the customer's mobile device's
17 performance of the comparison was not related to the image of
18 the check and, therefore, the comparison did not constitute
19 the customer's mobile device's, quote, checking for errors as
20 claimed in the '432 Patent.

21 MR. SHEASBY: Your Honor, he's referring to a
22 stricken paragraph of his report, and I asked him under oath
23 if he had a plain meaning for this phrase.

24 THE COURT: I know about your question on
25 deposition, Mr. Sheasby.

1 MR. LANTIER: And, Your Honor, I'll just say you
2 know why he asked that question because then he would take
3 whatever the answer was presumably and say, now, Professor
4 Bovik is construing the claims in violation of Your Honor's
5 claim construction.

6 MR. SHEASBY: No. I would use it to cross-examine
7 him so I wouldn't be sandbagged at trial.

8 THE COURT: You don't need to impute motives to each
9 other up into this point. We just need to get to an answer to
10 the question. I mean, the jury's been out of the room a good
11 10 minutes. That's time that's wasted. We need to get this
12 resolved or else I'm going to be sending the jury out every
13 time this comes up and we're going to waste a lot -- you-all
14 are going to waste a lot of your time and we're going to have
15 a continuing problem and I'm trying to get some resolution on
16 this.

17 MR. SHEASBY: So the issue is Doctor Bovik should be
18 free to say, I don't believe this is checking for errors, and
19 he can say that. It's in his report and he can say it.

20 What he can't say is it's necessary for it to be related
21 to an image or it's not checking for errors because it's not
22 related to an image. That is not his plain and ordinary
23 interpretation. He refused to give a plain and ordinary
24 interpretation.

25 So I'm not asking to preclude him from saying it's not

1 infringing because it's not a checking for error. But this
2 spin that, oh, it has to be related to a check image, that is
3 not the Court's claim construction and he declined to give a
4 plain and ordinary meaning analysis of it. And when I tested
5 him on it in deposition, he declined.

6 MR. LANTIER: Your Honor, I think --

7 THE COURT: Yes.

8 MR. LANTIER: -- what I'm hearing Mr. Sheasby say --
9 I think we can move past this if the witness can testify that
10 because the customer's mobile device performed the comparison
11 before any image of the check existed, in his view it's not
12 checking for errors as the claim is --

13 THE COURT: That's what paragraph 136 says, and I'll
14 permit that testimony.

15 MR. LANTIER: Thank you, Your Honor.

16 MR. SHEASBY: And the other thing is I would like
17 the last question and answer stricken from the record in which
18 he said it has to be related to the check.

19 MR. LANTIER: I can ask a clarifying question, Your
20 Honor.

21 MR. SHEASBY: I want it stricken from the record,
22 Your Honor.

23 THE COURT: I'll strike it from the record, and
24 we'll start over.

25 MR. SHEASBY: Thank you, Your Honor.

1 THE COURT: Now, so we have a clear understanding,
2 this witness is not going to testify that something is not
3 checking for errors because it is not on the check image.

4 MR. LANTIER: That's very clear, Your Honor.

5 THE COURT: Okay. I have his report in front of me.
6 I am ready to turn in a heartbeat to any particular paragraph.
7 If we have to marshal through the rest of his testimony by
8 checking paragraph to paragraph of his report, we will.

9 But remember, counsel, you have limited trial time. I'm
10 doing everything I can to maximize that for you. But these
11 kind of disputes which are not of my making are consuming a
12 lot of your trial time. In this case, I think there's been
13 some merit expressed by both of you, and I'm going to allocate
14 the time that has been lost while the jury's out of the
15 courtroom to both of you equally.

16 MR. SHEASBY: Thank you, Your Honor.

17 THE COURT: Let's bring the jury back in, please.

18 (Whereupon, the jury entered the courtroom.)

19 THE COURT: Welcome back, ladies and gentlemen.

20 There was a question and an answer prior to the recess
21 that I am going to have the court reporter read back, and then
22 I will have an instruction for you.

23 THE COURT REPORTER: Question: "Professor Bovik, in
24 your prior answer, did you mean to suggest that you understood
25 that the error has to be an error on the image?"

1 Answer: "No. I believe I stated or meant to state that
2 an error related to the image of the check.

3 THE COURT: All right. Disregard that exchange
4 between counsel and the witness, and I'll strike that from the
5 record. I think we now have clarity between the counsel and
6 the Court how this issue should be approached so we're going
7 to start afresh.

8 Mr. Lantier, why don't you ask your next question?

9 MR. LANTIER: Yes, Your Honor.

10 And, Mr. Nickels, could we please have the slides? I
11 don't think this is the slide.

12 Q. (BY MR. LANTIER) Professor Bovik, would you please
13 remind the jury what you were showing here in this slide?

14 A. Yeah. Again, this is a mobile device ostensibly in
15 Marshall, Texas, and you'll recognize the back-end server
16 computers I mentioned before a thousand miles away in
17 Greenfield, Virginia.

18 I had stated my opinion that there is no checking for
19 errors on the mobile device. It's all done at the back-end in
20 Greenfield, Virginia.

21 Q. Professor Bovik, do you remember there was some
22 discussion with Doctor Conte yesterday about where an image
23 quality analysis is performed in PNC's system?

24 A. I do.

25 Q. Where on this diagram is the image quality analysis

1 performed?

2 A. It's conducted at the back-end servers in Greenfield,
3 Virginia.

4 Q. Where on this diagram does PNC perform the check to make
5 sure that the image is actually an image of a check as opposed
6 to an image of something else?

7 A. This is also done at the back-end servers in Greenfield,
8 Virginia.

9 Q. And where on this diagram does PNC perform the check to
10 make sure that the amounts of the check can be read?

11 A. Again, in the back-end servers in Greenfield, Virginia.

12 MR. LANTIER: Mr. Nickels, will you pull up Doctor
13 Conte's Demonstrative Exhibit PDX 5.54?

14 Q. (BY MR. LANTIER) Professor Bovik, do you remember that
15 Doctor Conte testified that the code shown in this slide
16 demonstrated that in PNC's system, there was checking for
17 errors on the mobile device?

18 A. I remember that.

19 Q. Do you agree with Doctor Conte on that point?

20 A. I do not.

21 Q. Why do you disagree?

22 A. Because these are -- this is code that causes messages to
23 be received from the server by the mobile device stating that
24 an error may have been detected at the server, not on the
25 mobile device. That information is then used to display that

1 an error has occurred on the mobile device, but there's no
2 checking for an error on the mobile device.

3 MR. LANTIER: Mr. Nickels, if we could look at one
4 additional slide the jury saw yesterday with Doctor Conte.
5 Could we go to PDX 5.56?

6 Q. (BY MR. LANTIER) Professor Bovik, do you recall that
7 Doctor Conte also said that the RDC deposit limits check is
8 checking for errors?

9 A. I do recall.

10 Q. Do you agree with that?

11 A. I do not.

12 Q. Why do you disagree with that?

13 A. Well, if you look at the slide, you'll see a couple of
14 highlighted yellow items in the upper right. Okay? So the
15 \$25,100 is the amount that the customer wishes to deposit.
16 Right below that, it says today's limit \$25,000. That is less
17 than \$25,100. So this is just a comparison against the amount
18 that the customer wishes to deposit. It's not checking for
19 errors.

20 Q. And if this deposit limits check finds that the customer
21 wishes to exceed more -- excuse me, wishes to deposit more
22 than the customer is permitted to deposit, is the customer
23 allowed to take an image of the check?

24 A. They are not.

25 Q. Could we briefly discuss Doctor Conte's testimony

1 regarding the doctrine of equivalents?

2 A. We can, yes.

3 Q. Do you remember that yesterday Doctor Conte testified
4 that even if PNC were correct that the error checking that
5 occurs on the servers is not checking for errors on the mobile
6 device, that it would be equivalent to check for errors on the
7 servers?

8 A. I do remember that, yes.

9 Q. What is your response to that testimony?

10 A. Well, I disagree with it. Remember that the time frame
11 of this patent is the year 2006. At that time, wireless
12 transmission speeds were very slow. So if a customer were to
13 send an image to a remote server a thousand miles away, it
14 would take a long time. It would be an annoying, you know,
15 delay that they would have to wait of uncertain duration.

16 So, instead, it makes sense, as the, you know, patent
17 teaches, to do any checking for errors on the mobile device.

18 Q. And thank you, Doctor. Thank you, Professor Bovik.

19 Would it be okay with you if we turned to a different
20 portion of claim 1 of the '432 Patent?

21 A. That would be fine, yeah.

22 Q. And Professor Bovik, do you have --

23 MR. LANTIER: If we could advance to the next slide.

24 Q. (BY MR. LANTIER) Have you identified any other reasons
25 supporting your conclusion that PNC does not infringe the

1 claims of the -- the asserted claims of the '432 Patent?

2 A. I have.

3 Q. Using claim 1, can you explain?

4 A. Yes. This is claim 1 of the '432 you're seeing. You
5 will see I have annotated it in a number of ways.

6 First of all, in yellow, you'll notice that this is a
7 system claim. This system claim consists of two components.
8 The first, a customer's mobile device followed by things that
9 it does; and then, secondly, a bank computer followed by
10 things that it does.

11 As I've already described, PNC does maintain bank
12 computers, servers, at their back-end in Greenfield, Virginia.
13 However, PNC does not supply, make, use, or make available in
14 any way mobile phones to any customer or mobile devices, I
15 should say, to any customers. That is a required part of the
16 claim language as was written by USAA.

17 When USAA wrote this claim, they intended for the term
18 customer's mobile device to be part of the claim, they
19 intended that mobile device be important, and it is a
20 requirement of the claim.

21 Q. Professor Bovik, I think you'll remember that Doctor
22 Conte didn't dispute that PNC doesn't supply mobile devices to
23 its customers, but he testified that there is infringement of
24 this system claim because PNC controls and benefits from the
25 system. Do you recall that?

1 A. I do recall that.

2 Q. And do you agree with that?

3 A. Again, I don't agree. I think the customer is in control
4 of their own mobile phone. They can choose whether or not to
5 use the app at all. They can choose where to go on the app.
6 They can choose to, you know, flick away the app at any point
7 in time. The customer completely controls their own mobile
8 device.

9 MR. LANTIER: If we could please advance to the next
10 slide.

11 Q. (BY MR. LANTIER) Professor Bovik, I would like to ask
12 you about the '681 and '605 Patents, if that's okay with you.

13 A. Yes.

14 Q. What claims of the '681 Patent has USAA asserted?

15 A. 12, 13, 22, 26, and 30.

16 Q. And which claims of the '605 Patent has USAA asserted?

17 A. 12, 13, and 22.

18 Q. Have you had the opportunity to analyze these claims
19 against the evidence?

20 A. I have.

21 Q. At what conclusion have you reached regarding whether PNC
22 infringes these claims?

23 A. I have found no evidence of infringement of any of these
24 claims.

25 Q. Why are you discussing the '681 and the '605 Patent

1 together?

2 A. They share identical claim elements that I'll be talking
3 about and that are important here.

4 MR. LANTIER: If we could advance the slide to DDX
5 6.117.

6 Q. (BY MR. LANTIER) Using this slide, could you explain one
7 basis for your conclusion that there's no infringement of this
8 asserted '681 or '605 Patent claim?

9 A. Yes. This first basis is essentially what I just talked
10 about in the context of the '432 Patent. Again, this is a
11 system claim. Again, it has two components: the customer's
12 mobile device; and, secondly, the computer associated with the
13 bank. In other words, the bank computer.

14 So for the same reasons as before, I found that and have
15 concluded that PNC does not infringe this claim. They don't
16 make, supply, or make available in any way any mobile devices
17 to their customers. USAA chose to have this be part of the
18 claim language, it was important to them, they wrote it into
19 the claim. It's not infringed by PNC.

20 Q. Professor Bovik, if we advance the slide, does claim 12
21 have the same requirements that you talked about in relevant
22 part?

23 A. Same answer as I just described here, same components.
24 And for the same reasons, I've concluded that PNC does not
25 infringe this claim, either.

1 Q. Let's advance then to the next slide. Using claim 12 of
2 the '681 Patent, could you explain if there is another reason
3 why you concluded PNC does not infringe the asserted claims of
4 the '681 and '605 Patents?

5 A. Yes. So I've highlighted this, you can see, and I've
6 also blown it up to fill the screen.

7 You can see this claim has two parts which I've
8 annotated: one in green, presenting the photos of the check
9 to the customer after, and then the second part, the photos
10 are taken. So the photos are taken -- turning it around, the
11 photos are taken before they're presented to the customer.

12 Q. And do all of the asserted claims of the '681 and '605
13 Patents have a requirement of presenting photos or images of
14 the check to the customer after they are taken?

15 A. Yes, they do.

16 MR. LANTIER: If we could, please, advance to the
17 next slide.

18 Q. (BY MR. LANTIER) Using this slide, Professor Bovik,
19 could you explain --

20 MR. SHEASBY: Your Honor, we need to approach.

21 THE COURT: Approach the bench.

22 (The following was had outside the hearing of the
23 jury.)

24 MR. SHEASBY: Accused product, not accused app.

25 MR. LANTIER: Okay.

1 MR. SHEASBY: This is --

2 THE COURT: We don't have time to be this picky.
3 Okay? It was old app to begin with, and that's gone. I'm not
4 going to make him change it in the middle of his direct. I
5 gave you two options in chambers. This doesn't appear to be
6 exactly one of them. But, nonetheless, I'll -- don't walk
7 off, Mr. Sheasby.

8 MR. SHEASBY: I'm sorry. I'm sorry.

9 THE COURT: I just noticed you got up during direct
10 examination by opposing counsel and walked over to the other
11 side of the room and pulled a binder out of a box and walked
12 back over and sat down.

13 You've got Ms. Carson on the other side of the table.
14 All you have to do is hand her a note and she will discreetly
15 get you that binder instead of you roaming around this
16 courtroom.

17 MR. SHEASBY: I understand, Your Honor.

18 THE COURT: If that continues, I'm going to impose
19 sanctions against you.

20 MR. SHEASBY: I understand.

21 THE COURT: I expect you to respond when I give you
22 directions.

23 MR. SHEASBY: I understand, Your Honor.

24 THE COURT: All right. Let's go forward.

25 (The following was had in the presence and hearing

1 of the jury.)

2 THE COURT: Let's proceed.

3 Q. (BY MR. LANTIER) Professor Bovik, using this
4 demonstrative exhibit, could you explain the basis for your
5 conclusion of no infringement of this claim element?

6 A. Yes. Remember that I already stated that the photos need
7 to be taken before they're -- before the photos are presented
8 to the customer, and so -- and that's in the patent.

9 So specifically, as you can see in the left side of this
10 slide, under '681 and '605 Patents, this is my explanation of
11 how the patent teaches the claim. So you notice -- now, we're
12 talking about two check images in this case. So the photos
13 are just the two check images, the front and the back
14 typically. Okay?

15 So the '605 Patent teaches to, well, take the photo of
16 the front of the check, then take the photo of the back of the
17 check, then show the photo of the front of the check and the
18 back of the check. It might be together or it might not be.
19 Okay? But they are shown after they've been taken.

20 So I've described this as take, take, show, show, and
21 I'll be referring to this again as we go forward.

22 On the right, you'll see how PNC's accused app operates,
23 and I'll be demonstrating this as well. But the way the app
24 operates is that you start by taking a photo of the front of
25 the check, then you turn the check over and then you take a

1 photo of the back of the check. Okay? After it's shown.

2 Okay? So take, show, take. Okay?

3 So let me state that a little more clearly. You take a
4 photo of the front of the check, then it is shown to the
5 customer. Then you take the photo of the back of the check,
6 and then it is shown to the customer. Okay? That's the
7 ordering, which is different from take, take, show, show.
8 Instead, it's take, show, take, show. That's how PNC's app
9 operates.

10 MR. LANTIER: If we could please advance to the next
11 demonstrative exhibit.

12 Q. (BY MR. LANTIER) Using this demonstrative, Professor
13 Bovik, could you please show the jury what the claims of the
14 '605 and '681 Patent require in this respect?

15 A. Sure. This is how the patent operates. Remember the
16 patent operates by take, take, show, show. Okay? So what
17 happens first is you take a photo of the front of the check.
18 And we'll see a flash. Okay? Then you take a photo of the
19 back of the check after it's been turned over. Okay? Flash.
20 And then you're given the opportunity to, you know, as the
21 customer, to view both of the check images that have been
22 taken.

23 So that's why I say show. They can be shown together or
24 they can be shown separately, but after the pictures have been
25 taken.

1 MR. LANTIER: If we could please advance to the next
2 demonstrative exhibit, Mr. Nickels.

3 Q. (BY MR. LANTIER) Professor Bovik, using this, could you
4 explain how PNC operates?

5 A. So remember with PNC, the sequence is take, show, take,
6 show. And you can see that in the upper left corner here. So
7 you begin again by taking a picture of the front of the check,
8 then showing the picture of the front of the check that has
9 been captured.

10 As you can see, well, in this case we simulated a finger
11 covering the lens of the camera, and so the customer here
12 would probably take the opportunity to retake the photo.
13 Otherwise, it might not be recognized by the PNC system.

14 Once they take a check they are happy with--okay?--then
15 and only then can they take a picture of the back of the
16 check. And then flash, and then the picture of the back of
17 the check is also shown to the customer.

18 So take, show, take, show is the sequence that happens
19 with the PNC products.

20 Q. Do you recall, Professor Bovik, that Doctor Conte
21 testified that PNC would infringe under the doctrine of
22 equivalents --

23 A. I do.

24 Q. -- if it does not meet the claim limitation exactly?

25 A. I do.

1 Q. Thank you, sir. And we should be careful to not speak
2 over one another, and that was my fault. I apologize.

3 Do you agree with Professor Conte on that front?

4 A. I do not.

5 Q. Why do you disagree?

6 A. Well, a couple of reasons. First of all, it's a
7 different way of doing it. So as I already described, the
8 patent teaches that you take the photos before you show the
9 photos. And in the case of check images, it's take a photo,
10 take a photo, then show a photo, then show a photo. Okay.

11 In terms of the accused product, something different
12 happens. You take a photo and immediately you're given the
13 opportunity to be shown the photo without having to turn over
14 the check. Then after it's been shown, then you take the
15 photo of the back of the check and then you're given the
16 opportunity to review the photo of the back of the check.

17 THE COURT: Let me interrupt a minute. Let's leave
18 this on the screen.

19 Ladies and gentlemen, I gave explicit instructions to
20 Defense counsel to identify this on these slides as
21 PNC's-accused product. For some reason I'm unaware of and I
22 have no explanation for, these slides continue to say
23 PNC's-accused app. When you see something on these slides
24 that say PNC's-accused app, think of it as PNC's-accused
25 product, which is the accused product in this case. That I

1 think is an appropriate clarification given the error that's
2 on these slides.

3 All right. I'm not going to pull the slides down and
4 make them be reprinted and waste that time, but I want you to
5 be clear what's being talked about is PNC's-accused product.

6 Let's proceed, counsel.

7 MR. LANTIER: Thank you, Your Honor.

8 Q. (BY MR. LANTIER) Professor Bovik, would it be okay with
9 you if we turn to the final patent that we need to discuss?

10 A. Sure.

11 MR. LANTIER: If we could advance the slides.

12 Q. (BY MR. LANTIER) Which claims are asserted in the '571
13 Patent?

14 A. Claims 1, 2, 9, 12, and 13.

15 Q. Have you had the opportunity to review the evidence with
16 respect to the asserted claims of the '571 Patent?

17 A. I have.

18 Q. And can you remind the ladies and gentlemen of the jury
19 what this patent has been referred to? Sometimes it's hard to
20 keep track of the different numbers.

21 A. This is the auto-capture patent.

22 Q. And after reviewing the evidence with respect to this
23 patent, what did you conclude with respect to whether PNC
24 infringes?

25 A. Again, that the asserted claims were not infringed.

1 MR. LANTIER: If we could please advance to the next
2 slide.

3 Q. (BY MR. LANTIER) Could you explain to the jury the basis
4 for your conclusion that PNC's pre-4.20.1 mobile product does
5 not infringe the '571 Patent claims?

6 A. Yes. As you can see once again, a mobile device appears
7 in this claim language. And as I described already, PNC does
8 not make, use, offer for sale, or in any way make available
9 mobile devices to their customers. And, again, this was
10 written into the claim language with intention by USAA.

11 So I've concluded that PNC does not infringe this claim.

12 Q. Thank you.

13 MR. LANTIER: If we could advance ahead two slides,
14 Phil.

15 Q. (BY MR. LANTIER) Now, I would like to ask you some
16 questions about PNC's version 4.20.1. But before I do, would
17 it be okay with you, Professor Bovik, if I asked you to sum up
18 your conclusion as to whether PNC's prior versions of the
19 app -- the accused product infringe any of the asserted claims
20 of the asserted patents?

21 A. I haven't found infringement of any of the USAA claims by
22 the PNC's accused products.

23 Q. Thank you, Professor. Could we now speak briefly about
24 PNC's version 4.20.1?

25 A. Yes.

1 MR. LANTIER: And if we could advance the slides.

2 Q. (BY MR. LANTIER) I'd like to start with the 2006
3 generation patents that have been discussed during this trial,
4 if that would be okay with you. Would it be okay?

5 A. Yes.

6 Q. And do you remember that Doctor Conte acknowledged
7 yesterday that he had not asserted that version 4.20.1
8 infringes any of the 2006 generation patents?

9 A. I do remember, yes.

10 Q. In that case, why don't we move on to the one patent
11 where there may be some dispute. Would it be okay if we moved
12 on to the '571 Patent, sir?

13 A. Sure.

14 Q. And this is the patent -- is this the patent, again, that
15 the parties have been referring to as the auto-capture patent?

16 A. That is correct, yes.

17 Q. Have you reached a conclusion about whether PNC's version
18 4.20.1 infringes the '571 Patent?

19 A. It does not infringe, in my opinion, and I've reached
20 that conclusion, yes.

21 Q. What's the basis for your conclusion?

22 A. Because PNC does not perform auto-capture at all anymore
23 with their new -- with the version 4.20.1 app.

24 MR. LANTIER: Could we please pull up PDX 5.135 from
25 there, Phil? Excuse me, Mr. Nickels.

1 Q. (BY MR. LANTIER) Professor Bovik, do you recall that
2 Doctor Conte used this demonstrative exhibit yesterday in
3 setting forth his opinions regarding version 4.20.1?

4 A. I do recall, yes.

5 Q. And you can see the first bullet says that PNC
6 deactivated parts of the code so that it does not perform
7 auto-capture. Do you see that?

8 A. I do.

9 Q. What did PNC engineers have to do in order to disable the
10 auto-capture functionality?

11 A. Well, they actually had to go into the source code and
12 modify it in ways that no customer could ever access to
13 actually deactivate code so it could not ever be accessed by a
14 customer unless they again activate it, which -- yeah.

15 Q. Can any PNC customer turn auto-capture back on?

16 A. No PNC customer can do that. It's impossible.

17 Q. And so in version 4.20.1, how do PNC's customers capture
18 check images?

19 A. They do it manually. I mean, they just press a button
20 after they, you know, put the check in the field of view.
21 There is no auto-capture.

22 Q. Professor Bovik, do you see that the second bullet from
23 Doctor Conte's demonstrative is that the same infringing code
24 is still present in the PNC app?

25 A. Yes.

1 Q. And those were Doctor Conte's words. Correct?

2 A. That's correct, yes.

3 Q. Do you agree with that?

4 A. Well, there is code on the PNC app, but since it is not
5 accessible or usable in any way by a customer, it is not
6 infringing. So I disagree.

7 Q. And did you see that Doctor Conte said in the third
8 bullet that the auto-capture could be reactivated at any time?

9 A. I did see that, yes.

10 Q. Have you seen any evidence throughout this trial that PNC
11 intends to re-enable auto-capture?

12 A. I have seen no such evidence, no.

13 MR. LANTIER: If we could advance, please, to the
14 next slide.

15 THE COURT: Let me interrupt just a minute. We're
16 going to take a short recess. Hopefully this will be 10
17 minutes or less. There's never a perfect time to interrupt an
18 examination and I apologize, but this is as good as any.

19 Ladies and gentlemen, you can simply leave your
20 chairs -- your notebooks, rather, in your chairs, follow my
21 instructions about your conduct, and we'll be back shortly to
22 continue.

23 The jury's excused for recess.

24 (Whereupon, the jury left the courtroom.)

25 THE COURT: The Court stands in recess.

1 (Brief recess.)

2 THE COURT: Be seated, please.

3 Mr. Lantier, are you prepared to go forward with your
4 direct examination of the witness?

5 MR. LANTIER: Yes, I am, Your Honor.

6 THE COURT: All right. Then let's bring the jury
7 in, please.

8 (Whereupon, the jury entered the courtroom.)

9 THE COURT: Welcome back, ladies and gentlemen.
10 Please have a seat.

11 Mr. Lantier, we'll continue with your direct examination
12 of Professor Bovik. Please continue with your next question.

13 Q. (BY MR. LANTIER) Professor Bovik, do you remember we
14 were speaking about PNC's version 4.20.1?

15 A. I do.

16 Q. With respect to the asserted patents in this case, what
17 did you conclude with respect to whether PNC's version 4.20.1
18 infringes any of the asserted claims?

19 A. Version 4.20.1 doesn't infringe any of the claims.

20 Q. And does Professor Conte disagree with you as to the '432
21 Patent?

22 A. No.

23 Q. Does Professor Conte disagree with you as to the '605
24 Patent?

25 A. No, he does not.

1 Q. And does Professor Conte disagree with you as to the '681
2 Patent?

3 A. No.

4 Q. So Professor Conte doesn't disagree that PNC version
5 4.20.1 does not infringe any of the 2006 generation patents.
6 Is that right?

7 A. That's correct, yes.

8 Q. Okay. Could I ask you about one last topic, sir?

9 A. Yes.

10 Q. Okay.

11 MR. LANTIER: If we could advance to the next slide.

12 Q. (BY MR. LANTIER) Do you recall that USAA's damages
13 expert was a gentleman by the name of Mr. Kennedy?

14 A. I do.

15 Q. I wanted to ask you a few questions that related to the
16 opinions that he expressed earlier in this trial. Okay?

17 A. Okay.

18 Q. And these -- would it be okay if I asked you about the
19 technological comparability of two technologies?

20 A. Yes.

21 MR. LANTIER: If we could please advance to the next
22 slide.

23 Q. (BY MR. LANTIER) The first -- would it be okay if I
24 asked you about Zelle technology?

25 A. That's fine.

1 Q. What is Zelle technology?

2 A. Well, Zelle technology, as you already heard, is a method
3 of sending money from your bank account to somebody else's
4 bank account electronically.

5 Q. And you'll recall -- do you recall that Mr. Kennedy
6 discussed some agreements that related to Zelle technology in
7 connection with his damages opinions?

8 A. Yes.

9 Q. Have you formed a conclusion as to whether Zelle
10 technology is technologically comparable to the asserted
11 patents in this case?

12 A. I have.

13 Q. What's your conclusion?

14 A. Well, it's not comparable because they're very different.
15 As I said, Zelle technology is about, you know, sending money
16 from one bank account to another electronically, whereas the
17 technology of the patents is capturing pictures of checks with
18 a mobile device and then transmitting them to a remote
19 location. These are very different technologies.

20 Q. And, Professor Bovik, did you analyze ATM cash withdrawal
21 technology?

22 A. I did.

23 MR. LANTIER: If we could advance to the next slide.

24 Q. (BY MR. LANTIER) Is ATM cash withdrawal technologically
25 comparable to the asserted patents in this case?

1 A. It's not. First of all, it's about cash withdrawals, not
2 about depositing checks. It's also not about capturing
3 pictures of checks with mobile devices, and it's not about
4 transmitting those pictures to a remote location. So I find
5 that they are not technologically comparable.

6 Q. Thank you very much, Professor Bovik.

7 MR. LANTIER: Your Honor, I pass the witness.

8 THE COURT: Cross-examination by the Plaintiff?

9 MR. SHEASBY: Yes, Your Honor.

10 THE COURT: Please proceed.

11 CROSS-EXAMINATION

12 BY MR. SHEASBY:

13 Q. Good afternoon, Doctor Bovik.

14 A. Hello, Mr. Sheasby.

15 Q. We've met before?

16 A. Indeed we have.

17 Q. It's nice to see you again.

18 A. Likewise.

19 Q. I want to start by talking about the 2006 patent family,
20 and you describe that as -- get your language out so we get it
21 exactly right, the 2006 patent family you described as the
22 mobile phone check image patents. Correct?

23 A. In my presentation, I referred to it that way.

24 Q. In your presentation, you use the phrase mobile phone
25 check image patents for the 2006 patents. Correct?

1 A. Yes.

2 Q. Now, there are three patents in that family --

3 A. Yes.

4 Q. -- that are at issue in this case.

5 A. Yes.

6 Q. And one of those is the '432 Patent.

7 A. Is that a question?

8 Q. It is a question, sir.

9 A. Okay. Yes.

10 Q. And why don't we go ahead and I'm going to pull that
11 claim up on the screen. At any time if you need to look at an
12 exhibit, there are binders in front of you that have it in it,
13 but I think it will be easier and more efficient if we pull it
14 up.

15 So that's PX 004 at PDF page 32, and we'll look at
16 claim -- why don't we go down to claim 12. Let's go to claim
17 1, actually. I changed my mind.

18 So the 2006 patents refer to a system comprising a large
19 number of elements. Correct?

20 A. I agree.

21 Q. And it's your testimony to the ladies and gentlemen of
22 the jury that you don't believe PNC infringes this patent,
23 among other reasons, because PNC doesn't have a mobile remote
24 deposit capture system. Correct?

25 A. That's not what I've stated here today.

1 Q. Does PNC have a mobile remote deposit capture system?

2 A. PNC has a system that can be used to capture check images
3 and remotely deposit them that way, if that's what you mean.

4 Q. No. What I mean is PNC's system is a mobile remote
5 deposit capture system. Correct?

6 A. I'm not going to disagree with that.

7 Q. And, in fact, in your deposition, which you can turn to
8 right now, it's your second deposition and why don't you look
9 at page 200 of that. Tell me --

10 A. The second deposition --

11 Q. The second deposition, page 200. Tell me when you're
12 there, lines 3 through 13.

13 A. I'm there.

14 Q. PNC's system is a mobile remote deposit capture system.
15 Yes?

16 A. I see that, yes.

17 Q. That's the testimony --

18 THE COURT: Just a minute.

19 MR. LANTIER: Your Honor, I object to this because
20 this is not a proper use of a deposition transcript. The
21 witness just gave that answer, and then we turned to the
22 deposition transcript.

23 THE COURT: I'll sustain that. He didn't disagree
24 with you. As a matter of fact, his testimony was, I won't
25 disagree with that. I don't know why you went to the

1 deposition to impeach him.

2 MR. SHEASBY: I'm not trying to impeach him, Your
3 Honor. I'm just trying to confirm --

4 Q. (BY MR. SHEASBY) The answer is yes to the question that
5 PNC has a mobile remote deposit --

6 THE COURT: Just a minute, Mr. Sheasby. If you're
7 not trying to impeach him, then what's the proper use of the
8 deposition?

9 MR. SHEASBY: I was trying to refresh his
10 recollection, Your Honor.

11 THE COURT: He didn't indicate a lack of
12 recollection. I'm going to sustain the objection that was an
13 improper use of the witness' deposition.

14 Q. (BY MR. SHEASBY) Doctor Bovik, PNC's system is a mobile
15 remote deposit capture system. Yes?

16 A. Sure.

17 Q. And the claim says a system. Correct?

18 A. I agree.

19 Q. And you told the ladies and gentlemen of the jury that
20 the patents are mobile phone check image patents. Correct?

21 A. If you're referring to the slide characterizing the 2006,
22 that's correct.

23 Q. And, in fact, the claims of the 2006 patents, a number of
24 them require a system. Correct?

25 A. Yes.

1 Q. Some of the asserted claims in the 2006 family do not
2 require a system. Correct?

3 A. That's correct.

4 Q. You didn't tell the jury about that -- those claims, did
5 you?

6 A. Well, I referred to all the claims at times. I focused
7 on one claim.

8 Q. You didn't discuss the jury with the fact that there are
9 a number of claims in the 2006 family that don't require a
10 system. Correct?

11 A. I'll agree with that, although I referred to those claims
12 just -- I didn't leave them out of my opinions and conclusions
13 entirely is what I'm saying.

14 MR. SHEASBY: Your Honor, I move to strike
15 everything after, I agree with that.

16 THE COURT: Overruled. Let's move on.

17 Q. (BY MR. SHEASBY) Now, the PNC system, there are
18 authorized devices that can be used on PNC's mobile system.
19 Correct?

20 A. Yes.

21 Q. And those specific authorized devices are IOS and
22 Android. Correct?

23 A. That's correct.

24 Q. And if you don't have an authorized device, you cannot
25 use the system. Correct?

1 A. I'll agree with that.

2 Q. So I'd now like to focus the jury on what's at issue in
3 this case. What's at issue in this case is the version of the
4 PNC's system that was in place from 2006 to --

5 THE COURT: Just a minute. Yes, Mr. Lantier?

6 MR. LANTIER: Your Honor, it sounds like a long
7 colloquy. I think if he'd ask a question to the witness, this
8 would move forward more quickly.

9 THE COURT: Mr. Sheasby, we don't need counsel
10 telling the jury what you'd like to focus on. If you'll ask a
11 question, the witness will respond to it or I'll instruct him
12 to respond to it.

13 MR. SHEASBY: I'm happy to do that, Your Honor.

14 THE COURT: All right. Let's proceed on that basis.

15 Q. (BY MR. SHEASBY) You -- the system in dispute for
16 infringement purposes in this case is the system that existed
17 between 2016 and 2021. Correct?

18 A. I agree.

19 Q. And that system used auto-capture. Correct?

20 A. That system had a form of auto-capture. I'll agree with
21 that.

22 MR. SHEASBY: Well, let's go to PX 1971.

23 Q. (BY MR. SHEASBY) This is a video that PNC prepared. I'm
24 going to show you two excerpts from it.

25 MR. SHEASBY: Let's play it, Mr. Huynh. There's no

1 audio, Mr. Huynh.

2 "I'm Alex and I have been part of PNC's mobile team for
3 about five years. Mobile deposit, especially PNC mobile
4 deposit, is important right now because you can deposit most
5 checks into your PNC bank account without actually having to
6 leave your house. You know, usually you can do that with most
7 Apple or Android smartphones or tablets."

8 And let's jump to 103.

9 "And then write in the amount that the check that you're
10 going to be depositing. And when you click continue, you just
11 kind of hold the phone over the check and it will
12 automatically take photos of the check for you, and you'll
13 review those. And you'll flip it over, and you'll take the
14 photo of the back of the check which has already been signed
15 and endorsed, and you click continue. It's going to prompt
16 you and ask if you would like that check --"

17 Q. (BY MR. SHEASBY) So PNC publicly states that the system
18 accused of infringement in this case automatically captures
19 images. Correct?

20 A. Mr. Goodstein said that in this video.

21 Q. And Mr. Goodstein is the manager responsible for the
22 mobile remote deposit capture system at PNC. Correct?

23 A. Correct.

24 Q. Now, the second non-infringement argument you have
25 relates to whether the PNC Mobile Deposit System checks for

1 error. Fair?

2 A. If by fair you mean is that correct, then I agree.

3 Q. And why don't we go to PDX 5.56. This is Professor
4 Conte's demonstrative.

5 MR. SHEASBY: Can we have the elmo, Madame Courtroom
6 Deputy.

7 Mr. Huynh, let me know when you're ready to go back to
8 the monitor.

9 Q. (BY MR. SHEASBY) So this is all the elements of the '432
10 Patent. Correct? Claim 1.

11 A. It looks like it. I'll take your word for it.

12 Q. Are there any missing elements that you recollect, sir?

13 A. I mean, there's a lot of words here. I am not checking
14 for missing words, so I'll agree that it's claim 1.

15 Q. Element A says a system comprising. Correct?

16 A. Yes.

17 Q. You testified that PNC has a mobile remote deposit
18 capture system. Correct?

19 A. Sure.

20 Q. A customer's mobile device including a downloaded app,
21 the downloaded app provided by a bank to control check deposit
22 by causing the customer's mobile device to perform. And then
23 it lists a series of elements. Correct?

24 A. This is what the patent claim reads.

25 Q. And you didn't tell the ladies and gentlemen of the jury

1 that element B is missing. Correct?

2 A. Well, as I just explained -- well, first of all, if you
3 mean missing in the PNC-accused product, I guess if you could
4 restate your question so I can understand where you are
5 referring to missing from.

6 Q. Sure. You have an opinion that PNC doesn't build its
7 system, and I understand that. But from a technical matter,
8 the phones that are used on PNC's system, you don't dispute
9 that they do elements B, C, and D. Correct?

10 A. I'll agree that the mobile device does elements C and D.
11 B is self-referential to the mobile device.

12 Q. You're not disputing that there's a customer mobile
13 device that's used with PNC's application. Correct?

14 A. There may be a mobile device, depending on the customer.
15 There may be a mobile application.

16 Q. PNC sells a mobile application -- PNC develops a mobile
17 application. Correct?

18 A. PNC offers a mobile application.

19 Q. That mobile application is used on customer mobile
20 devices like Android and IOS devices. Correct?

21 A. It can be.

22 Q. And, in fact, we just saw a video from PNC showing it on
23 a mobile device. Correct?

24 A. Sure.

25 Q. And you also didn't tell the ladies and gentlemen of the

1 jury in your direct that element E is missing. Correct?

2 A. Do you mean present in the claim or --

3 Q. That the customer's mobile device presents the photo, you
4 didn't say that that element was missing. Correct?

5 A. No, I didn't -- I didn't say that it was missing.

6 Q. You didn't say that element F was missing. Correct?

7 A. I did not.

8 Q. You didn't say that element G was missing. Correct?

9 A. Nope, didn't.

10 Q. You didn't say that element H was missing. Correct?

11 A. That's correct. I didn't say that element H was missing.

12 Q. You didn't say that element I was missing. Correct?

13 A. I did not.

14 Q. Now, you did tell the jury that element G was missing,
15 checking for errors before the submitting step. Is that
16 right?

17 A. I think you meant to say J.

18 Q. Element J. Thank you for the correction.

19 A. That is correct.

20 Q. And I think what you said is you said it doesn't -- the
21 mobile device doesn't check for errors before the submitting
22 step. Is that correct?

23 A. I have expressed that opinion, yes.

24 Q. I wrote that down. And a couple of things --

25 THE COURT: Speak into the microphone, Mr. Sheasby,

1 please, or raise your volume.

2 MR. SHEASBY: Yes, Your Honor.

3 Let's now go to my opening at PDX 1.14. 1.14. 14, Mr.
4 Huynh.

5 Q. (BY MR. SHEASBY) So this is claim 1 again. And you were
6 here in my opening. Correct?

7 A. Yes.

8 Q. And you agree that the PNC mobile app evaluates whether a
9 deposit amount would cause the user to exceed the applicable
10 deposit limits, and if so, it would display an error.
11 Correct?

12 A. Could you read that entire question again?

13 Q. Sure. You agree that the PNC mobile app evaluates
14 whether deposit of the amount would cause the user to exceed
15 the applicable deposit limits daily or monthly, and if so,
16 would display an error. Correct?

17 A. The PNC mobile app does form a comparison between the
18 amount entered and the limit.

19 Q. And it displays an error.

20 A. It may or may not display an error message.

21 Q. So let me ask the question as precisely as possible. The
22 PNC mobile app evaluates whether the deposit of that amount
23 would cause the user to exceed the applicable deposit limits,
24 daily or monthly, and if so, would display an error. Correct?

25 A. I will agree that those events happen.

1 Q. And in your report, you actually depict this operation.
2 Correct?

3 A. Maybe you can refresh my memory where I should be
4 looking.

5 Q. Why don't I show you the next slide and maybe this will
6 refresh your recollection.

7 MR. SHEASBY: PDX 1.15.

8 Q. (BY MR. SHEASBY) So this is a PNC-designed document.
9 It's PX 0303, and you actually had an excerpt to that document
10 in your report. Correct, sir?

11 A. As I recall, yes.

12 Q. And you see the mobile phone is there on the left.
13 Correct?

14 A. Yes.

15 Q. And over here, if it's within -- if it's outside the
16 deposit limits, then it displays an error. Correct?

17 A. So, sure. I mean, if the deposit amount exceeds the
18 daily limit, then an error message will be displayed.

19 Q. And all of this occurs on the phone. Correct?

20 A. This occurs on the mobile device.

21 Q. Let me ask you my next question, which is, it's your
22 testimony to the ladies and jury [sic] that this doesn't
23 satisfy the claim limitations. Correct?

24 A. That is correct.

25 Q. And if I go back to element J -- and obviously the ladies

1 and gentlemen of the jury, when they address your -- assess
2 your credibility, they're entitled to look at PX 0303 where it
3 expressly says display error. Fair?

4 A. Again, if you're -- if fair means correct, then yes, we
5 can look at that.

6 Q. And it says checking for errors before the submitting
7 step. Correct?

8 A. This is a claim element, you know, yes.

9 Q. It does not say checking for errors before the submitting
10 step and after the photo capture step. Correct? Not in the
11 claim language?

12 A. What it says is what it says, checking errors before the
13 submitting step. So it doesn't say all that extra stuff that
14 you added.

15 Q. Sir, are the words 'before the image is captured' present
16 in the claim?

17 A. That is not in claim element, you know, 1J.

18 Q. And, now, you said something -- you said that the patent
19 teaches checking for errors on the mobile device. Correct?

20 A. That is correct.

21 Q. And let's actually go to an example of one of those
22 patents. This is the '681 Patent.

23 MR. SHEASBY: And let's go to PDF page 16, which is
24 figure 3.

25 Q. (BY MR. SHEASBY) That's figure 2. You believe that

1 figure 2 describes an operation that occurs on the mobile
2 device. Correct?

3 A. I'm sorry. Could I have that again?

4 Q. Sure. Figure 2 describes an operation that occurs on the
5 mobile device, blocks 205 -- well, let me just stop there.
6 Figure 2 describes an operation that occurs on the mobile
7 device. Correct?

8 A. Recognizing that we've moved to a different patent.

9 Okay? I'm sorry. I'm not sure where you're pointing to in
10 figure 2.

11 Q. I'm pointing to the blocks in 205 to 210.

12 A. And with regards to those blocks, the question is
13 specifically?

14 Q. This is describing operations that occur on the mobile
15 device. Correct?

16 A. I don't remember what the language is exactly in the
17 specification for the '681 Patent, but I'm not going to, you
18 know, disagree at this point.

19 Q. Well, why don't we go to your deposition at 48:19 to
20 49:6, your second volume.

21 A. Which deposition?

22 Q. Volume 2.

23 MR. LANTIER: Your Honor, the witness just
24 testified, I do not disagree.

25 THE COURT: So your objection is?

1 MR. LANTIER: Sorry, Your Honor. My objection is
2 that this is improper use of deposition transcript.

3 THE COURT: Mr. Sheasby?

4 MR. SHEASBY: He said he wasn't going to disagree at
5 this time. If he's happy to give me a definitive of I'm not
6 going to disagree, I can move on.

7 THE COURT: Well, I'm happy for you to probe him
8 about a definitive answer, but you need to do it in real time
9 in the courtroom and not referring him back to his deposition.
10 Unless he's testified with a prior inconsistent statement, I
11 don't know what basis you'd be using the deposition for. That
12 would be proper. So I'm going to sustain the objection.

13 MR. SHEASBY: Figure 3. Let's pull up figure 3 now.
14 Q. (BY MR. SHEASBY) Figure 3 describes functions that are
15 part of the mobile deposit process -- mobile check deposit
16 process as recited in the patent specification and claims.
17 Correct?

18 A. So I'm finding the description in the specification
19 related to figure 3. And so I can be more precise, could you
20 restate the question?

21 Q. Sure. Figure 3 describes functions that are performed as
22 part of the mobile check deposit process as recited in the
23 patent specification and claims.

24 A. So for -- in the specification for both figures 2 and 3,
25 in the description of the figures in the specification, I

1 don't see any reference to a mobile device.

2 Q. Okay. Why don't you turn to your deposition at 49:7
3 through 14, volume 2.

4 A. Page 49?

5 Q. Yes, sir. Line 7 through 14.

6 A. Okay.

7 Q. Did you give that testimony?

8 A. Yeah, this is my deposition, yes.

9 MR. SHEASBY: I'd like to now publish it to the
10 jury, Your Honor.

11 THE COURT: Ask him the question again now that
12 you've refreshed his recollection. And if he answers
13 differently than in his deposition, I'll grant leave for you
14 to publish his deposition.

15 Q. (BY MR. SHEASBY) Figure 3 describes functions that are
16 performed as part of the mobile check deposit process as
17 recited in the claims -- the patent specification and claims.
18 Correct?

19 A. Are you asking me to affirm that this exact language is
20 in the deposition transcript? I'm a little unsure of the
21 question. Sorry.

22 Q. Sure. Please answer the following question: Figure 3
23 describes functions that are performed as part of the mobile
24 check deposit process as recited in the patent specification
25 and claims.

1 A. Well, I see that as part of a question, and then I see an
2 answer that includes part of that as well, as well as further
3 language.

4 MR. SHEASBY: So I move to strike as non-responsive,
5 and I seek permission to publish, Your Honor.

6 THE COURT: Granted.

7 MR. SHEASBY: Let's publish it.

8 Question: "And then figure 3 describes functions that
9 are performed as part of the mobile check deposit process."

10 Answer: "Sure. And once again, you know, as recited in
11 the patent spec and claims, you know, mobile device as in the
12 spec and claims and mobile deposit as in the spec and claims
13 of this patent."

14 Do you see that, sir.

15 A. Yes.

16 Q. And the jury is entitled to assess your credibility as an
17 expert based on the testimony you gave under oath in this
18 deposition and what you've said here today. Correct?

19 A. That is correct, yes.

20 Q. Now, I was showing you figure 2 and 3 from the '681
21 Patent. Correct?

22 A. That is correct.

23 Q. And figure 2 and 3 are identical in the '432 Patent.
24 Correct?

25 A. They share the same figures, yeah.

1 Q. And, in fact, you agree that figure 3 shows checking for
2 errors as claimed in claim 1. It shows a mobile device that
3 is checking for errors. Correct?

4 A. I'm not sure where you're referring or which patent even
5 right now.

6 Q. Sure.

7 MR. SHEASBY: Why don't we put back up figure 3 of
8 the '432 Patent. That is PX 0004 at page 22.

9 Q. (BY MR. SHEASBY) This figure shows checking for errors
10 as claimed in claim 1. It's the mobile device that is
11 checking for errors. Correct?

12 A. Sure.

13 Q. And in figure 3, it's describing steps such as comparing
14 OCR and validating routing number that are being performed on
15 the server. Correct.

16 Professor Bovik, as my daughter says, can I give you a
17 tick and give you a helping hand?

18 A. Oh, I'm already there.

19 Q. Okay. If you'd turn to 9, 17 through 22, of the '432
20 patent.

21 A. I've already read that. I've moved on from there.

22 MR. SHEASBY: Why don't we go ahead and pull up '432
23 Patent, lines 9 through 17. That's at PDF page 30, Mr. Huynh.

24 Q. (BY MR. SHEASBY) It says figure 3 illustrates a method
25 for processing a check deposit. A method of figure 3 is

1 designed to compliment that of figure 2 and to exhibit
2 exemplary steps that may be carried out by the server or other
3 electronics operated by financial institutions.

4 Do you see that, sir? It's line 16 --

5 A. It see that right there.

6 MR. SHEASBY: It's line 16 through 22, Mr. Huynh?

7 Q. (BY MR. SHEASBY) So you testified that figure 3 of the
8 '432 Patent is the mobile device checking for errors.

9 Correct? You just said that?

10 A. I said that, you know, it could be a mobile device. This
11 is the specification. This is not the claim.

12 MR. SHEASBY: Well, I'd move to strike as
13 non-responsive, and I'd ask Your Honor --

14 THE COURT: I'll sustain that.

15 Q. (BY MR. SHEASBY) I'd now like you to turn to page 52,
16 column 4 through 14, of your deposition, Doctor Bovik. Let me
17 know when you're there.

18 A. I'm there.

19 Q. Did you give that testimony under oath, sir?

20 A. I did.

21 MR. SHEASBY: I'd like now to publish it, Your
22 Honor.

23 THE COURT: Ask him the prior question. If he
24 answers it differently than in his deposition, then you may
25 publish the deposition.

1 Q. (BY MR. SHEASBY) This figure 3 shows checking for errors
2 as claimed in claim 1. It's the mobile device that is
3 checking for errors. Correct?

4 A. Yes, that's substantially paraphrases what I said.

5 Q. And you said that under oath. Correct?

6 A. Yes.

7 Q. And you had a chance to change your deposition testimony.
8 If you wanted to, you could correct it.

9 A. I'm not sure if that's a question.

10 Q. It's a question, sir.

11 THE COURT: Let me clarify this for you, Doctor
12 Bovik. Everything is going to be a question or I'm going to
13 stop it and correct it. A lot of lawyers don't -- the
14 question will come out as a statement, but they are expecting
15 you to respond to it.

16 If he asks you something that is clearly not a question,
17 I will insert myself in the process. If I don't insert myself
18 in the process, you can assume it's a question you should
19 respond to.

20 THE WITNESS: Thank you, Your Honor.

21 THE COURT: All right.

22 Q. (BY MR. SHEASBY) So figure 3 is an example of claim 1, a
23 mobile device checking for errors, and in figure 3, the OCR
24 and routing number occurs on the server. Correct?

25 A. I don't agree with that.

1 Q. Let's go a back to figure 3, 9, 17 through 22. I'm
2 sorry, '432 Patent, lines 9, 17 through 22. It says, as
3 illustrated, figure 3 illustrates a method for processing a
4 check deposit. Figure 3 is designed to complement that of
5 figure 2 and to illustrate exemplary steps that may be carried
6 out by a server for other electronics operated by a financial
7 institution. Correct?

8 A. I agree.

9 MR. SHEASBY: Now let's go to figure 3 itself. And
10 let's scroll up.

11 Q. (BY MR. SHEASBY) And these are examples of work that's
12 being performed -- these are examples of work that's being
13 performed on the server. Correct?

14 A. It's work that's being performed on a server described in
15 the specification.

16 Q. And then the -- an error message goes out. Correct?

17 A. That is an error message, yes.

18 Q. And then it goes to the mobile device. Correct?

19 A. In this figure, there is delivery to -- I'd have to check
20 again whether that's going to the mobile device.

21 Q. There is a delivery of an error message. Correct?

22 A. I agree with that, yeah.

23 MR. SHEASBY: And now let's go to Professor Conte's
24 slide. This is PDX 5.55.

25 Q. (BY MR. SHEASBY) And you told the ladies and gentlemen

1 of the jury that one of the reasons that you believe PNC
2 doesn't infringe the '432 Patent is because the testing occurs
3 on the server. Correct? Checking OCR, checking routing
4 number occurs on the server. Is that correct?

5 A. Well, I'm not referring to what you're drawing on the
6 screen. Okay? But setting that aside, I will agree that in
7 PNC there is checking for errors of various types.

8 Q. And the server is involved in that. Correct?

9 A. The server does checking.

10 Q. And the server sends that message to the mobile device.
11 Correct?

12 A. Well, after all the checking is done, then the server
13 sends messages to the mobile device, that's correct.

14 Q. Error codes. Correct?

15 A. Yeah. The error codes are to inform the mobile device
16 just what to display.

17 Q. And if we go back to figure 3 of the '432 Patent, work
18 being done on the server. Correct?

19 A. In this figure for this embodiment, there is work being
20 done on a server.

21 Q. And an error is detected and sent to the mobile device.
22 Correct?

23 A. Again, I'd have to check the spec with regards to where
24 that's delivered, but an error is detected.

25 Q. And a message is sent. Right?

1 A. A message is sent, yeah.

2 Q. And you agree that the jury is allowed to assess your
3 credibility based on the testimony you just gave regarding
4 figure 3 of this patent. Correct?

5 A. Yes.

6 Q. Another set of claims at issue are claims in the '605 and
7 '681 Patent. Correct?

8 A. Yes.

9 Q. And your analysis of those -- that patent for the
10 purposes of infringement is the same. Correct?

11 A. I'm -- that's kind of a general statement. I'm trying to
12 understand it. Which analysis?

13 Q. The ladies and gentlemen of the jury, when you talked
14 about infringement of the '681 and '605 Patent, you treated
15 them together. Is that correct?

16 A. That's correct, yes.

17 MR. SHEASBY: And why don't we go to Professor
18 Conte's slide 5.59.

19 Q. (BY MR. SHEASBY) And, once again, just to level set for
20 the jury, you're not telling the jury that element A is
21 missing. Correct?

22 A. If you mean from the accused product --

23 Q. Let me ask it this way. You agree that the system, the
24 PNC system, you didn't tell the jury that it was missing
25 element A. Correct?

1 A. I'm just trying to be precise. And when you say it, I
2 don't -- you know, what are you referring to, it.

3 Q. You didn't tell the jury that PNC's system is missing
4 element A. Correct?

5 A. No, I didn't.

6 Q. You didn't tell them that it was missing element B.
7 Correct?

8 A. Well, as I stated, PNC doesn't supply mobile devices to
9 any of the customers.

10 Q. PNC uses authorized mobile devices that have the features
11 C, D, E, and F. You didn't dispute that in your testimony.
12 Correct?

13 A. I disagree.

14 Q. You told the jury that the phones used on PNC's system
15 are missing element C, D, E, and F?

16 A. Well, counsel, you asked me a question whether PNC's
17 phones did this, and so I couldn't agree with you.

18 Q. Sir, you didn't tell the ladies and gentlemen of the jury
19 that the authorized phones used on PNC's system are missing B,
20 C, D, E, or F. Correct?

21 A. I didn't say that -- I don't know if those phones even
22 have, you know, the software on them or what. So --

23 MR. SHEASBY: I move to strike as non-responsive,
24 Your Honor.

25 MR. LANTIER: Your Honor, if I may respond, I don't

1 think the question was clear to the witness, and I think
2 there's a way to ask these questions that elicits what Mr.
3 Sheasby would like to get.

4 THE COURT: Well, Mr. Sheasby's entitled to ask the
5 questions he chooses in the way he chooses, and I'm not going
6 to let him suggest to you how you ask your questions. I think
7 the witness is trying to be responsive, although I don't think
8 it directly answers the question.

9 I'm going to deny the motion to strike, but I'm going to
10 allow counsel to reurge the question.

11 Q. (BY MR. SHEASBY) You didn't tell the jury that the
12 authorized mobile phones that use PNC's application are
13 missing elements B, C, D, E, or F. Correct?

14 A. Now I can agree with you.

15 Q. You didn't tell them that element H was missing.
16 Correct?

17 A. No, I didn't, from the PNC-accused products.

18 Q. You didn't tell them that element I was missing.
19 Correct?

20 A. That's correct.

21 Q. You didn't tell them that element J was missing.
22 Correct?

23 A. That's correct.

24 Q. You didn't tell them that element K was missing.
25 Correct?

1 A. That's correct.

2 Q. Now, you did tell the ladies and gentlemen of the jury
3 that you thought element G was missing--presenting the photos
4 of the check to the customer after the photos are taken.
5 Fair?

6 A. I agree.

7 MR. SHEASBY: And let's turn to one of your slides.
8 It's 6.121.

9 Q. (BY MR. SHEASBY) And you said that the patents, the '681
10 and '605 Patent, teach take, take, show, show. Correct?

11 A. This is what I explained, yes.

12 Q. And you told the ladies and gentlemen of the jury that
13 the patent teaches that. Correct?

14 A. That is correct.

15 MR. SHEASBY: And why don't we turn to column 13,
16 line 64, to 14, line 27 of the '605 Patent, which is PX 2.
17 It's column 13 and 14, Mr. Huynh. Scroll up. Why don't you
18 go to 14, line 7 -- oh, you can take it both. That's lovely.
19 Thank you.

20 Scroll down and go through 25. Actually, let's just do
21 14, line 7 through -- let's do 14, lines 7 through 27, Mr.
22 Huynh. Let's just do that. That will make it easier.

23 Q. (BY MR. SHEASBY) So this is a passage from the '605
24 Patent specification. Correct?

25 A. Yeah, I agree.

1 Q. And you use the word 'teaches', and the patents teach
2 through their specification. Correct?

3 A. I'll agree with that.

4 Q. And it says, "Once an image is generated, subsystem 602
5 may further instruct the customer to process the electronic
6 image of the front side of the check." Correct?

7 A. This is what it reads.

8 Q. And then it says one of the ways it can do this is by
9 simply approving the image. Correct?

10 A. I'm not sure what you're pointing at.

11 Q. Processing the image may comprise simply approving the
12 image. Correct?

13 A. Sure.

14 Q. And you approve the image in this part of the
15 specification by looking at the image. Correct?

16 A. Agreed.

17 Q. So the front side of the image is taken -- the front side
18 of the check is taken and then the customer approves the image
19 by looking at it in this portion of the specification.
20 Correct?

21 A. I see one image in this portion of the specification, not
22 two images.

23 Q. It says front side. Correct?

24 A. Yeah, but there's still just one image here.

25 MR. SHEASBY: I move to strike.

1 THE WITNESS: So I'd say -- I mean, it says the
2 front side, yes.

3 MR. SHEASBY: I move to strike everything after
4 yeah, Your Honor.

5 THE COURT: Sustained.

6 Q. (BY MR. SHEASBY) And then below that, it talks about
7 capturing image of the back side of the check. Correct?

8 A. It states that, yes.

9 Q. And then after that, it talks about displaying the back
10 to the customer. Correct?

11 A. Well, that's not the language, but it states the customer
12 may also be asked to approve.

13 Q. And the way you approve it is by looking at it. Correct?

14 A. It doesn't state it there, but it could be.

15 Q. This passage describes an embodiment in which you capture
16 the front image, ask the customer to approve it, and then the
17 back side is then captured and approved. Correct?

18 A. I disagree.

19 Q. This passage describes an embodiment in which you capture
20 the front image, ask the customer to approve it, and then the
21 back side is also captured and approved. Correct?

22 A. So I disagreed because I see separate descriptions for
23 processing the front side and processing the backside.

24 Q. So let's go to your deposition at 174, 6 through 25.

25 A. Sorry, where?

1 Q. 174, line 6 through 25.

2 A. I'm there.

3 Q. And if you go from lines 14 through 27, this describes an
4 embodiment which you capture a front image, ask the customer
5 to approve it, and then capture a back image and ask the
6 customer to approve it. Fair?

7 A. Are you referring to 14 through 25 of my deposition,
8 which is where I'm looking at, or are you back to the
9 specification?

10 Q. I'm back speaking about the specification.

11 A. Okay. Ask your question again because I was looking at
12 the deposition.

13 Q. Sure. This passage from the specification describes
14 capturing the front image, asking the customer to approve,
15 capturing the back image, and then asking the customer to
16 approve. Correct?

17 A. So I wanted to check the surrounding language. Could I
18 have the question again?

19 Q. Sir, the passage describes an embodiment in which you
20 capture the front image, ask the customer to approve it, and
21 then the back side is also captured and approved. Correct?

22 A. I'm not going to agree with that.

23 Q. Okay. So let's publish your deposition at 174, lines 6
24 through 25.

25 Question: "Does the passage from column 14, line 64, to

1 14, line 27, describe an embodiment in which you capture a
2 front image, ask the customer to approve it, and then capture
3 a back image and ask the customer to approve it?"

4 Answer: "Well, you know, you're -- that passage, no.
5 But the next line, starting at lines 19 through 27, fill in
6 the part where you're also capturing the image of the back
7 side of the check and asking him to, you know, asking the
8 -- the customer may also be asked to approve it by 602.

9 "So in the passage you presented to me, no. But if we
10 include the next paragraph from column 14, lines 19 through
11 27, connected to that, then the back side of the check is also
12 captured and approved, just to paraphrase."

13 Did I read your testimony correctly, Doctor Bovik?

14 A. You read this part of my testimony correctly.

15 MR. SHEASBY: I move to strike as non-responsive.

16 MR. LANTIER: Your Honor, I don't think that was
17 non-responsive.

18 MR. SHEASBY: I'll actually withdraw that.

19 Q. (BY MR. SHEASBY) And you understand that the embodiment
20 at lines 13 through 64 to 14 through 27 is covered by claim 1
21 of the '605 Patent. Correct?

22 A. One more time. I was -- my screen disappeared and --

23 Q. The embodiment that we were just discussing, you concede
24 it's covered by claim 1 of the '605 Patent. Correct?

25 A. I'm not agreeing that it's necessarily a single

1 embodiment nor that it's covered by the claim.

2 Q. Let's go to your deposition at 176: 7 through 177: 1.

3 So actually you know what? The ladies and gentlemen of
4 the jury, when they assess your credibility, they can consider
5 the fact that you're not conceding that the passage that we
6 were just looking from from the specification of the '605
7 Patent is covered by the claim of the '605 Patent. Correct?

8 A. Yeah, I'll agree with that.

9 THE COURT: Counsel, approach the bench, please.

10 (The following was had outside the hearing of the
11 jury.)

12 THE COURT: I want an answer to this question. This
13 witness was deposed. Was he this deliberate and long in
14 answering questions?

15 MR. SHEASBY: He was evasive the entire time, Your
16 Honor, but not anything like this. This is beyond anything.

17 THE COURT: If I thought that a witness was
18 intentionally burning opposing counsel's trial time as a
19 strategic tactic, I would be very upset, Mr. Lantier.

20 MR. SHEASBY: This is unbelievable, Your Honor.

21 MR. LANTIER: Your Honor, I understand that, and I
22 represent to you that there is absolutely no intention to do
23 that.

24 THE COURT: Well, there may not be an intention on
25 your part to do that. I can't speak for the witness' part. I

1 don't know if he's trying to build goodwill for people that
2 may hire him in the future by burning up opposing counsel's
3 time. I can't understand why somebody of this level of
4 education is taking this long to respond to questions.

5 MR. SHEASBY: Your Honor, this is --

6 MR. LANTIER: Your Honor --

7 THE COURT: One at a time. I'll hear from both of
8 you.

9 MR. LANTIER: Your Honor, I don't know if you think
10 this is appropriate, but I'd like to take a short break. I
11 can -- we can in your presence say to Doctor Bovik, we think
12 we need to move this along faster. I don't know how to remedy
13 this. I think he's just trying to be careful. I think that
14 is his personality.

15 MR. SHEASBY: Your Honor, he was never like this.
16 He answered questions rapidly. And I would like two remedies.
17 One, I'd like an instruction in front of the jury for him to
18 be responsive and prompt.

19 And the second thing is I would like some of PNC's time
20 because I budgeted an hour for this deposition, for this
21 cross, and I'm already at an hour. And it's not because I'm
22 playing games. It's because this witness is taking an
23 excessive amount of time.

24 THE COURT: Well, here's what I'm going to do. I'm
25 going to send the jury out of the courtroom, and then I'm

1 going to instruct the witness to respond promptly and
2 reasonably. And if he has doubts about understanding the
3 question, then he should say so immediately.

4 I'll carry your request, Mr. Sheasby, but at this point
5 I'm not prepared to grant either one of them.

6 MR. SHEASBY: Thank you, Your Honor.

7 THE COURT: We'll see if we can speed this up a
8 little bit.

9 MR. LANTIER: I don't know if you want to say this
10 or not, but remind him that there's always redirect. So if he
11 thinks, you know --

12 THE COURT: All right.

13 MR. LANTIER: I can always clean it up or --

14 THE COURT: All right.

15 MR. SHEASBY: I would object to you coaching the
16 witness through Judge Gilstrap.

17 THE COURT: I'll talk to the witness. You gentlemen
18 take your places.

19 (The following was had in the presence and hearing
20 of the jury.)

21 THE COURT: Ladies and gentlemen of the jury, I know
22 it's late in the day, but there's a matter I need to take up
23 outside your presence.

24 I'm going to ask you to retire to the jury room for just
25 a few minutes. I don't expect this to take long. Simply

1 leave your notebooks closed and in your chairs. Follow all my
2 instructions about your conduct, and we'll have you back in
3 here shortly.

4 I'll ask the jury to retire to the jury room at this
5 time.

6 (Whereupon, the jury left the courtroom.)

7 THE COURT: Please be seated.

8 Professor Bovik, I've not had the privilege of having you
9 testify in my court before, so this is the first time we've
10 met. But I will tell you I have rarely seen a witness and in
11 fact I don't remember a witness playing the same role in a
12 different trial that you're playing here as a technical expert
13 taking the inordinate amount of time to respond to questions
14 as you're taking.

15 And I'm sure you're aware of this, but the Court has
16 placed these parties on a fixed amount of trial time, and I
17 want to be sure that you're not deliberately delaying your
18 responses to consume trial time that's charged to the
19 Plaintiff that they won't be able to get back with other
20 witnesses. I rarely -- well, I've never seen a witness take
21 as much time to answer a question. I'm told that when you
22 were deposed, you responded promptly. I wasn't there; I don't
23 know.

24 We're going to continue this examination. I want you to
25 understand that if you have any doubt about the question, you

1 simply have the right to always say, I don't understand the
2 question, and it will be rephrased.

3 And also counsel for PNC is going to get a chance to ask
4 you follow-up questions after this cross-examination if
5 there's any matter they think needs to be cleaned up, in their
6 view.

7 But we've covered about 20 minutes of testimony in about
8 an hour's worth of time, and I'm not imputing any improper or
9 malicious motive to your conduct, but I would not have stopped
10 the trial and had this discussion with you if the amount of
11 time you were taking to respond was not disproportionately
12 longer than I've seen or experienced in my time on the bench.
13 And this is something near my 90th patent infringement trial
14 in 10 years, so this is not the first time I've seen a witness
15 testify on matters similar to this.

16 So to the extent you can speed up your responses, to the
17 extent you can make it clear you don't understand the question
18 and have it rephrased, we need to get this back on some kind
19 of a reasonable timeline. Otherwise, the Plaintiff is going
20 to be materially prejudiced by the time you are taking as
21 opposed to what any other witness would take.

22 And I want you to be aware that these parties are on
23 limited time. And when their time is used, they will not get
24 further time before the jury. So time is a precious commodity
25 in a trial like this, and counsel for both sides budgeted and

1 planned for it down to the minute, if not the second
2 sometimes. And this has gone on long enough that I'm
3 beginning to be very concerned about where this is going to
4 leave us.

5 So I'm not going to tell you what to say or how to say
6 it, but to the extent you can respond more promptly, to the
7 extent we can speed up this process, we definitely need to.

8 Is that clear?

9 THE WITNESS: Yes, Your Honor. I'm sorry if I have
10 taken more time than you expected. It wasn't my intention.

11 THE COURT: Well, I don't think you're being asked
12 questions about something for the first time. Most of this
13 has probably been covered in your deposition already. You
14 should be -- and I'm sure you've spent hundreds of hours
15 combing through these patents and this technology in
16 preparation for this testimony.

17 So this is not like somebody was pulled off the street
18 and put on the spot and asked a whole bunch of questions they
19 didn't understand. You're extremely experienced and educated
20 in this field. I can't understand why we're sitting here in
21 dead silence for minute after minute after minute before we
22 get an answer, especially when many, if not all, of these
23 questions have been propounded to you earlier during your
24 deposition.

25 So I'm going to bring the jury back in, I'm going to ask

1 you to use your best efforts to speed up the process, and then
2 we're going to go forward. All right?

3 THE WITNESS: Yes, Your Honor.

4 THE COURT: All right. Let's bring the jury back
5 in, please.

6 (Whereupon, the jury entered the courtroom.)

7 THE COURT: Thank you. Please be seated.

8 Mr. Sheasby, continue with your examination of the
9 witness, please.

10 Q. (BY MR. SHEASBY) I'd like to go and speak about the 2009
11 patent family.

12 MR. SHEASBY: Let's have Professor Conte's slide,
13 PDX 5.121.

14 Q. (BY MR. SHEASBY) You did not dispute for the ladies and
15 gentlemen of the jury that PNC's system involves element A.
16 Correct?

17 A. That is correct.

18 Q. You didn't dispute that it involves element B. Correct?

19 A. That's correct.

20 Q. You didn't dispute that it involves element C. Correct?

21 A. That's correct.

22 Q. You didn't dispute that it involves element D. Correct?

23 A. That's correct.

24 Q. And you told the ladies and gentlemen of the jury that
25 this claim requires a mobile phone. Correct? A mobile

1 device.

2 A. Yes.

3 Q. The claim is actually to a non-transitory computer
4 readable medium. Correct?

5 A. Yes.

6 Q. That's stored software. Correct?

7 A. Well, the medium is not, but the medium is a memory.

8 Q. It requires storing software on memory. Correct?

9 A. I agree.

10 MR. SHEASBY: Let's go to PDX 5.102.

11 Q. (BY MR. SHEASBY) You don't dispute that every single one
12 of the monitoring criteria listed in the '571 Patent are used
13 in PNC's infringing product. Correct?

14 A. I haven't disputed these, no.

15 Q. And you told the ladies and gentlemen of the jury that
16 the code --

17 MR. SHEASBY: Let's look at Professor Conte's slide
18 on this, actually.

19 Q. (BY MR. SHEASBY) For the period after the damages in
20 this case, there has been some alteration to the code.
21 Correct?

22 A. That's correct.

23 MR. SHEASBY: And why don't we go to PDX 5.135.

24 Q. (BY MR. SHEASBY) The code for auto-capture is still
25 present on PNC's apps. Correct?

1 A. It is present, yes.

2 Q. And it's temporarily disabled and can be activated again
3 at any time by PNC. Correct?

4 A. I will disagree with that because it's not as simple as
5 that.

6 Q. You're not going to disagree with me that setting the
7 auto-capture mode is not a very difficult thing to do from a
8 programming perspective. Correct?

9 A. I don't agree with that because there is a lot involved
10 with making it available to the customer.

11 MR. SHEASBY: Why don't we go to Bovik depo at 140,
12 lines 11 through 18.

13 Q. (BY MR. SHEASBY) Why don't you read that.

14 A. I'm there.

15 Q. Asking you again, you're not going to disagree that
16 setting the auto-capture mode parameter is not a very
17 difficult thing from a programming perspective. Correct?

18 A. I agree from a programming perspective, yes.

19 Q. And you have no factual basis to disagree that developers
20 can choose to enable or disable the auto-capture functionality
21 when they choose to do so. Correct?

22 A. I agree with that.

23 Q. Now, you also talked about the -- this 421 application.
24 And just to level set, this 421 application, that's not the
25 application that the jury is going to assess infringement

1 based on. Correct?

2 A. That's correct.

3 Q. And in PNC's opening statement--and I think you showed
4 this as well--PNC's counsel represented that it was missing
5 two features.

6 MR. SHEASBY: And let's go to DDX 1.65.

7 Q. (BY MR. SHEASBY) I'll show it on the elmo. So these two
8 features are present in the part that's accused of
9 infringement in this case. Correct?

10 A. I'll agree with that.

11 Q. And one of the issues the jury is going to be asked to
12 consider is whether this system -- this 4.20.1 is a
13 non-infringing alternative. Correct?

14 MR. LANTIER: Your Honor, I object. May we --

15 THE COURT: State your objection.

16 MR. LANTIER: My objection is that I think that's
17 contrary to court orders that relate to the non-infringing
18 alternative issue. Your Honor, to explain, he asked the
19 witness whether the jury was going to be asked to consider
20 whether this was a non-infringing alternative to the patents,
21 and I believe that that's been resolved as to certain patents.

22 MR. SHEASBY: Your Honor, I object to the argument
23 that's being made right now in the side of asking a question.
24 Non-infringing alternative is a basic element of damages and
25 I'm entitled to ask this witness that question.

1 THE COURT: Approach the bench.

2 (The following was had outside the hearing of the
3 jury.)

4 THE COURT: This is -- are you talking about the
5 '571 Patent?

6 MR. LANTIER: No, Your Honor. My concern was that
7 the question was not limited to the '571 patent, and Your
8 Honor has already ordered that the 4.20.1 is a non-infringing
9 alternative to the '432, '605, and '681 Patent. So I think
10 it's confusing to suggest to the jury that they will decide
11 that issue. They won't decide that issue.

12 THE COURT: I thought I made it clear this morning
13 that I view the 4.20.1 as a possible non-infringing
14 alternative, but that's going to have to be ultimately decided
15 by the jury, and it seems like the dispute is about the
16 availability of it, and I expected that to be fleshed out in
17 this testimony. So I'm -- if you're under the impression that
18 I've held as a matter of law that the 4.20.1 is a
19 non-infringing alternative to the MRDC patents, then I need to
20 correct that. My view is that it may be; it may not be. It's
21 an issue for the jury to decide, and it's going to revolve,
22 based on the evidence I've heard, as to whether or not the
23 jury believes that it will be available as a non-infringing
24 alternative. It has been determined, and I think Judge
25 Payne's order is clear, that 4.20.1 does not infringe any of

1 the MRDC patents.

2 MR. LANTIER: I misunderstood.

3 THE COURT: The 2006 family.

4 MR. LANTIER: I misunderstood, but now I understand.

5 MR. SHEASBY: Your Honor, could you ask the jury to
6 ignore the colloquy that --

7 THE COURT: No. I'll make it clear that the
8 objection is overruled.

9 (The following was had in the presence and hearing
10 of the jury.)

11 THE COURT: All right. The objection is overruled.

12 Let's proceed.

13 Q. (BY MR. SHEASBY) So one of the issues the jury is going
14 to have to consider is whether 4.20.1 is a non-infringing
15 alternative. Correct?

16 A. Yes.

17 Q. And Professor Conte discussed three USAA patents that he
18 believed established that it was not a non-infringing
19 alternative. Correct?

20 A. Yes.

21 Q. And one of those patents is the 9,224,136 Patent.

22 MR. SHEASBY: Let's pull that up. It's PX 1377.

23 Q. (BY MR. SHEASBY) You did not examine these patents as
24 part of your analysis. Correct?

25 A. That is correct, yes.

1 MR. SHEASBY: And if you go to claim 1, it's --
2 actually go to PX 1761, which is 10,402,638. PX 1761.

3 Q. (BY MR. SHEASBY) This is another USAA patent,
4 10,402,638. Correct?

5 A. Yes.

6 Q. You didn't analyze this patent. Correct?

7 A. That is correct.

8 MR. SHEASBY: Let's go to PX 1762.

9 Q. (BY MR. SHEASBY) And this is another USAA patent,
10 10,769,598. Correct?

11 A. Yes.

12 Q. You didn't analyze this patent. Correct?

13 A. That's correct.

14 Q. And you didn't tell the ladies and gentlemen of the jury
15 that 4.20.1 does not infringe these three patents. Correct?

16 A. Correct.

17 Q. There was no barrier that would have prevented you from
18 reviewing these patents. Correct?

19 A. I was never asked to review these patents or to consider
20 this.

21 MR. SHEASBY: I move to strike as non-responsive,
22 Your Honor.

23 THE WITNESS: So that's correct.

24 THE COURT: Overruled.

25 Q. (BY MR. SHEASBY) These patents were shown to you and are

1 referenced in your report. Correct?

2 A. I believe so, yes.

3 Q. And you didn't review them. Correct?

4 A. Not for this purpose, no.

5 Q. And you have no testimony that you can offer the jury
6 disagreeing with Professor Conte's conclusion that 4.20.1
7 infringes the three patents. Correct?

8 A. I didn't conduct that analysis, so I agree.

9 Q. And, in fact, to be crystal clear, you have not rendered
10 any opinion that the version 4.20.1 is legally a
11 non-infringing alternative. Correct?

12 A. That is correct.

13 Q. The last issue I want to discuss is your discussion of
14 the level of skill in the art. And I think that's on page 107
15 of your presentation.

16 MR. SHEASBY: Actually let's take that down.

17 THE COURT: Well, you put it on the elmo. You'll
18 have to take it down.

19 Q. (BY MR. SHEASBY) The last issue I want to discuss is you
20 made reference to Zelle and ATM deposits, and you gave some
21 analysis as to whether they were technologically comparable.
22 Correct?

23 A. I did.

24 Q. You have no experience whatsoever in the banking
25 industry. Correct?

1 A. That's correct, yeah.

2 MR. SHEASBY: Pass the witness.

3 THE COURT: All right. Redirect, Mr. Lantier?

4 MR. LANTIER: Thank you, Your Honor.

5 Mr. Nickels, if we could have DDX 1.11.

6 REDIRECT EXAMINATION

7 BY MR. LANTIER:

8 Q. Professor Bovik, do you remember that PNC's counsel used
9 this demonstrative exhibit during the opening statements?

10 A. I do.

11 Q. And if even one element of a patent claim is not present,
12 either literally or under the doctrine of equivalents, in a
13 product, is there infringement?

14 A. There is not.

15 Q. So, in other words, if there's one element of the claim
16 that is determined not to be met literally or under the
17 doctrine of equivalents, then the entire patent claim is not
18 infringed. Is that right?

19 A. That is correct, yes.

20 Q. Now, you went through quite a bit of material during your
21 cross examination that Mr. Sheasby showed you. Did anything
22 that Mr. Sheasby showed you during the cross examination cause
23 you to second-guess any of the opinions you've offered?

24 MR. SHEASBY: It's narrative and it's leading;
25 objection.

1 THE COURT: Overruled. It's a typical question.

2 You may answer the question, Doctor Bovik.

3 THE WITNESS: No, I didn't second-guess any opinions
4 that I've given.

5 Q. (BY MR. LANTIER) Do you remember you were asked some
6 questions about how easy it would be to re-enable the
7 auto-capture feature?

8 A. Yes.

9 Q. Would it be easy for PNC to re-enable auto-capture such
10 that its customers could use it?

11 A. It would not be easy.

12 Q. Why wouldn't it be easy?

13 A. Well, as I said already, changing the code itself may not
14 be very difficult; however, there's a lot more to it than
15 that, and that's because once the code is changed, then the --
16 you know, the app -- the source code has to be recompiled, the
17 resulting product of that then has to be loaded onto the
18 iPhone store or onto the Google Play store--okay?--and then
19 all of the many, many customers, millions of customers have to
20 agree to, you know, download and update their app in order for
21 that to happen. So this process, you know, is not so simple
22 and takes a long time.

23 Q. And you were here for -- you saw on the slide that Mr. --
24 did you see on the slide that Mr. Sheasby presented the
25 indication that PNC was only disabling the auto-capture

1 feature temporarily?

2 A. I did see that, yes.

3 Q. Were you here when Ms. Larrimer testified earlier today
4 that PNC does not have any intention of re-enabling
5 auto-capture at this time?

6 A. I was here.

7 Q. Now, the last topic -- excuse me. Could I ask you about
8 one more topic, sir?

9 A. Yeah.

10 Q. Do you remember that Mr. Sheasby asked you whether you
11 had offered an opinion that PNC does not infringe three
12 unasserted patents?

13 A. I do.

14 Q. And those were the '136, the '598, and the '638 Patent
15 that we've heard about. Is that right?

16 A. That's correct.

17 Q. Now, those patents are not asserted against PNC in this
18 lawsuit. Is that right?

19 A. That's right.

20 Q. In this lawsuit, what were your opinions responsive to?

21 A. My opinions were responsive to, you know, the evidence
22 presented with regards to the four patents that I'd been
23 talking about.

24 Q. And were you responding to opinions that Doctor Conte had
25 provided in this case?

1 A. That is correct.

2 Q. In this case, has Doctor Conte provided any of his own
3 analysis of these three unasserted patents?

4 A. Not that I've seen, no.

5 Q. And in this case, has Doctor Conte identified what
6 features of remote deposit he believes are covered by these
7 claims?

8 A. He has not.

9 Q. And in this case, has Doctor Conte provided any of his
10 own analysis about what feature or features of PNC's mobile
11 app would infringe any claim of these three unasserted
12 patents?

13 A. Not that I have seen, no.

14 Q. Was there any infringement analysis from Doctor Conte in
15 this case for you to respond to with respect to those three
16 patents?

17 A. There was not.

18 MR. LANTIER: I pass the witness.

19 THE COURT: Is there further cross examination?

20 MR. SHEASBY: No further cross, Your Honor.

21 THE COURT: You may step down, Doctor Bovik.

22 Counsel, approach the bench, please.

23 (The following was had outside the hearing of the
24 jury.)

25 THE COURT: There's no way we can put Mr. Morris on

1 now. I assume he's here.

2 MR. SHEASBY: He is.

3 THE COURT: He'll have to come back in the morning.

4 Can we pick one of the two of these short depositions and
5 get them played?

6 MR. STONE: Sure. About how much time?

7 THE COURT: I want to go until about 6:00. I want
8 to use about 20 minutes.

9 MR. STONE: All right.

10 THE COURT: Take a minute and check.

11 (The following was had in the presence and hearing
12 of the jury.)

13 THE COURT: Defendants, do you have a deposition
14 witness you can present at this time?

15 MR. STONE: We do, Your Honor. Thank you.

16 THE COURT: Call that deposition witness, please.

17 MR. STONE: We call Reynaldo Medina, who at the time
18 of his deposition was lead research engineer at USAA.

19 THE COURT: Proceed with this witness by deposition.

20 MR. STONE: Thank you, Your Honor.

21 REYNALDO MEDINA, SWORN, BY VIDEO DEPOSITION

22 Q. Good morning, Mr. Medina. Can you hear me?

23 A. I can hear you.

24 Q. And do you currently work for USAA?

25 A. Yes.

1 Q. And you started working for USAA in January 2006?

2 A. Yes.

3 Q. And when you first started working on remote deposit at
4 USAA in 2006, there were already remote deposit systems out
5 there for businesses using check scanners. Is that correct?

6 A. The industry was using a batch-based process for taking
7 in checks from physical hardware. So USAA was not using
8 hardware specifically for check scanners. We utilized -- we
9 utilized the hardware that members had already, which was
10 scanners and consumer scanners, not high-end commercial
11 scanners.

12 Q. So why is it that the -- that the process of getting the
13 check image from a mobile device was even harder to detect and
14 correct, as you said?

15 A. So in a very simple answer, it's all about image quality.
16 When you take a picture of the check on the background, you
17 introduce different lighting conditions, multiple sources of
18 lighting. You're introducing user skew. You're introducing
19 the possibility of shadow over the check image. So the
20 problems multiply when you use a mobile device to capture a
21 check image and process it accordingly.

22 Once those problems are solved, then you can utilize, you
23 know, what we had before, which was -- you know, the readers
24 that we had to extract information from the check images and
25 the resolution corrections that we had to create down the

1 line.

2 Q. For those issues that you described, different lighting
3 conditions, the sources of lighting, skew, shadow, et cetera,
4 those were -- those were not -- those were new problems
5 compared to using scanner?

6 A. We didn't have to worry about resolution correction in
7 the scanner -- scanner bed issue.

8 The lighting conditions, there were some persistent
9 lighting conditions on the -- the scanner bed, but they
10 multiplied exponentially when we utilized the mobile deposit,
11 remote deposit capture system.

12 Q. For cameras, you mean?

13 A. For cameras and user-based -- user-based and user-owned
14 common mobile devices.

15 Q. And I guess same thing with skew and warping, that --
16 that problem increased exponentially when you introduced
17 mobile devices and cameras. Is that right?

18 A. Skew persisted even in Deposit@Home in our scanner bed
19 options, but they -- those problems multiplied exponentially
20 in the mobile -- mobile deposit in our mobile-based imaging
21 system.

22 Q. And what about warping? Was that also much harder?

23 A. Yes. The check image would come in as a trapezoidal type
24 of image. So it's -- a trapezoid is where the top of the
25 check is a lot smaller than the bottom of the check where

1 sometimes it would come inverted.

2 And so when you introduce problems like that, you know,
3 CAR reading engines, MICR reading engines absolutely fail all
4 the time, and if we don't correct that, then nothing will
5 pass.

6 Q. So is it fair to say that when you're using a mobile
7 device or a camera, you have to account for a variety of
8 different backgrounds that the check image picture -- the
9 check image might be taken against?

10 A. We have to account for reflection, noise, low lighting
11 conditions, shadow over the MICR line, shadow over the CAR
12 area, reflection from coffee cups, obstacles in the
13 background, different colors of backgrounds.

14 We had to account for many of these image quality types
15 of issues, skew and de-warping, either both on the consumers
16 -- consumer side, which was on the mobile device. We had
17 active algorithms at some point in the future, and we also had
18 active image processing and correction happening in our
19 servers in the special cases that some of those problems
20 couldn't be weeded out.

21 Q. One of the problems you worked on you said was de-warping
22 and de-skewing the check -- a check image submitted by a
23 mobile device or camera. Correct?

24 A. That is correct. I worked on those kinds of problems.

25 Q. Okay. And do you remember when you first started working

1 on those kinds of problems?

2 A. Specifically for our mobile deposits, February 2007 is
3 the date that comes to mind.

4 Q. Okay. And is February 2007 also the date that you
5 remember starting to work on extracting the check from the
6 larger image submitted through a mobile device or a camera?

7 A. The theoretics of the process were known as early as
8 February 2007. The implementation took a couple of years to
9 implement, but the undulate process of utilizing a camera to
10 automatically capture a check image were known, and the
11 algorithms developed as early as 2007 helped make that happen.
12 But it wasn't necessarily just me; there were several people.
13 There was a team of people to make this happen, to answer your
14 question specifically.

15 And at the end of the day, it resulted in a very precise,
16 very nice corner detection which allowed them to correct and
17 de-skew and de-warp the image.

18 Q. Was this a -- Were these -- or was this a custom
19 algorithm that you came up with?

20 A. This was a very custom algorithm. No APIs did any heavy
21 lifting at this time. There was some APIs used at the time to
22 help some of the very basic processing, but the algorithm I
23 developed on my own.

24 Q. Okay. So this was a -- it was a proprietary algorithm
25 you developed on your own from 2007 and 2008?

1 A. Yes, and I also had assistance from Bharat Prasad.

2 Q. And how did you -- how did you come with this?

3 A. So I'm not really sure I understand the question, "coming
4 up with it." I was trying to solve a problem that I saw, and
5 there were no algorithms out there. There's no programs that
6 I could download that solved it for me. There existed some
7 corner detection processes, but they were nowhere near
8 real-time, and they weren't adverse to noise.

9 So I believe that there -- I would like to say something
10 called queue transforms that allowed someone to take an image
11 or an object and solve for edges and corners, but when you
12 introduce backgrounds of varying interests and reflections,
13 those kinds of algorithms fail, so I had to create my own
14 process to extract those nicely and perfected segments and
15 images and apply very nice corner detection to de-warp --

16 THE REPORTER: Apply what? Apply what?

17 THE WITNESS: Apply very nice corner detection and
18 de-warp the images so that it looks like it was nearly close to
19 a scanned image.

20 Q. Okay. And did you -- did you try researching -- you said
21 you tried researching methods that were already out there at
22 the time and couldn't find one that was satisfactory?

23 A. That is correct. I had to utilize my knowledge of signal
24 processing to find information that was out there, but there
25 was nothing of interest, nothing real-time, nothing applicable

1 for the problems I was trying to solve.

2 Q. Okay. But let's talk about bitonalization, getting the
3 image to black and white from gray scale.

4 Did you use something called a fuzziness threshold to do
5 that?

6 A. To create the nice segmentation image, yes, I used a
7 fuzziness threshold that was provided by the API I had at the
8 time. It was just basically the mid points of a histogram in
9 determining black and white. But it was problematic when we
10 utilized different colors of background because there were
11 issues when you use color. Somehow when you converted it to
12 an image or even gray scale, those colors kind of tend to
13 blend. And so the fuzziness thresholds wasn't proved by
14 taking that image and dividing -- taking an image of a check
15 and dividing it into four regions and which we apply
16 segmentation on each of those quadrants, and that dramatically
17 improved the segmentation process later on.

18 Q. And when did you -- when did you figure out that it would
19 be better to divide the image into four quadrants and work on
20 each of them separately?

21 A. I tried different varying degrees of column and row
22 combinations. I tried three-by-three matrices, four-by-four
23 matrices, even increased it all the way to six, and the most
24 simplest case was using -- taking four sub-images of the input
25 image and applying segmentation on each of those quadrants.

1 Q. And when were you doing that experimentation?

2 A. I can't remember the particulars, it's been a long time,
3 but somewhere between 2007 and 2009 time frame; within those
4 two years.

5 Q. And how did you decide to use the fuzziness threshold
6 rather than like the mean or the medium or the mode or
7 something like that?

8 A. So statistically when you use the average or the mean or
9 medium, you can get varying results. And I'm not trying to
10 take the average or the expected value of a series of inputs,
11 but I'd like to look at the center of mass of where dark and
12 light meet. And this allows me to correctly binarize the
13 check image when I saw for the minimum threshold. However,
14 the minimum fuzziness thresholds that you could afford from a
15 general API wasn't sufficient enough. I had to create my own
16 little tweaks and tolerances of where that --

17 THE REPORTER: My own my little what? My own little
18 what?

19 THE WITNESS: I had to create my own tweaks and
20 tolerances of where that middle center of mass may lie.

21 Q. And when were you -- when were you sort of experimenting
22 on those tweaks and tolerances to get it to work right?

23 A. Between 2007 and 2009 time frame. I have to look at a
24 calendar and look at digital copies of work that may have
25 persisted during that time in to give a specific answer.

1 Q. Other than checking if the MICR line or the courtesy
2 amount could be read, do you remember developing other
3 algorithms to detect blur in the image?

4 A. I'd have to look at some of the stuff that I made by
5 looking at the code base to jog my memory, but there were blur
6 detection. There was histogram analysis. There were
7 segmentation processes, de-skew and de-warping, some
8 convolutional filtering for very bad ugly images. Those are
9 the big ones that come off of my head. And those kind of
10 things happen both on the server side as well as on the mobile
11 device that enabled automatic capture and allowed the process
12 to continue pre-automatic capture as well.

13 Q. In the de-skew and de-warping that you worked on, that
14 was -- that was part of the bigger project of being able to
15 extract the check from the background?

16 A. So if -- if the -- if the -- if I did not solve the
17 extraction and de-warping part of the check image, the CAR
18 reading and the MICR reading would fail because it would only
19 accept a check image without a background, and it would only
20 accept a rectangular image at the right resolution. So
21 without those algorithms in place, things would fail.

22 And we did some of this on the mobile device in our
23 automatic capture when we read for things like quality checks,
24 and some of it included corner detection; some of it included
25 numbers at the bottom of the check on the device itself. And

1 so there was different quality checks of interest that we
2 protected in our patent filings.

3 Q. But without those algorithms that you developed working
4 with the other folks to de-skew, de-warp, and extract the
5 check image from the background, the check image -- in 2007 to
6 2009, the check images would have failed reading the courtesy
7 amount and MICR line?

8 A. I know for sure they would have failed for the CAR
9 reading engine because the Mitek software was awful. I mean,
10 it would fail on -- if a fly landed on the check image. So
11 the check image had to be nearly perfect. And I wish there
12 was a different CAR reading engine that we could have replaced
13 it at the time, but at the time we just had to deal with what
14 we had.

15 Q. Sure. When Deposit@Home was released with the scanner
16 solution, am I right that initially USAA was having to do a
17 lot of manual adjustments to the images that were too dark or
18 had white space?

19 A. So when you say 'manual', are you referring to someone
20 fixing or correcting an image that was sent? Because --

21 Q. Correct.

22 A. -- we created a system in which it would automatically
23 fix and correct images on the fly in real time so that we can
24 provide members a -- an experience where they deposit their
25 check in that same, you know, five minutes and get the funds

1 right away. So it was a real-time experience. So if there
2 was a manual process going on, that would -- that would be out
3 of the question. That would be a bad user experience for
4 USAA.

5 Q. Exhibit 121 is a patent -- U.S. patent that ends with the
6 numbers '571. Do you see that?

7 A. '571, yes.

8 Q. And you're an inventor on this patent. Right?

9 A. Yes.

10 Q. Do you remember the invention that you had in your mind
11 and the invention that you thought you had invented, did you
12 understand that if the monitoring criteria were passed, that
13 would necessarily mean that the check image was good enough to
14 be read using optical character recognition?

15 A. 'Monitoring criterion', can we define that a little bit?

16 Q. Well, it's a term that's used in the claim that you're
17 the inventor of. What do you understand it to mean?

18 A. Well, there's different monitoring criterion that I have
19 in mind, but when someone submits their idea and gets counsel
20 to draft up a patent application, a lot of the times the
21 terminology gets legalized, I guess you can say. And so it's
22 been a while since I've looked at this patent, so I'm not
23 really sure how to answer that question with monitoring
24 criterion and the CAR reading.

25 Q. Well, what monitoring criterion do you have in mind?

1 A. So I'd have to probably read -- read certain aspects of
2 the description on how we reference monitoring criterion.
3 When we have a patent application and we mention a particular
4 phrase, it's not necessarily my opinion, it's -- it has to
5 deal with whatever's in the description or the embodiment of
6 the patent. So I'd have to look further through and kind of
7 read through it, which could take a little time.

8 Q. Did you have in mind specific sets of monitoring criteria
9 that you thought would work well in 2009 when you submitted
10 this patent application?

11 A. So it's kind of hard to tell what specifically I had in
12 mind. I know that we needed metrics of interest to determine
13 good quality. I can ascertain to that. But I don't think I
14 have enough information to answer your question completely.

15 Q. So in 2009 you reused or -- you reused the infrastructure
16 you already had, checked for scanned images to read the MICR
17 line on the back-end servers.

18 A. We were utilizing MICR readings on our back-end servers
19 as early as 2006. At some point in the process, we started
20 MICR reading on the mobile device, but I'm not sure on those
21 exact dates.

22 Q. Okay. And how about -- how about the courtesy amount,
23 that was -- when mobile -- when Deposit@Mobile launched, the
24 courtesy amount was being read by software running on USAA's
25 back-end servers. Right?

1 A. So I don't work for the bank, but I knew that we were
2 already doing CAR reading with OrboGraph prior to 2006. It
3 just so happened that when I came on the project, I was
4 working on CAR readings for real-time processing versus batch
5 processing.

6 Q. Okay. Exhibit 14 has -- it says, "October 22nd, 2010
7 update on Deposit@Mobile extraction by Rey Medina."

8 Do you see that?

9 A. I see it.

10 Q. Okay. Do you -- do you recognize this document?

11 A. I wrote it.

12 Q. Okay. Can you tell me what it is?

13 A. Well, it's been a long time, but it seems like it's the
14 -- a generalization of the Deposit@Mobile algorithm in
15 production at the time.

16 Q. At the time being October 22nd, 2010?

17 A. That is correct.

18 Q. If we go to the next page, the fourth page, in between
19 the two pictures, there's some lines -- there's some text. It
20 says, "We now have samples of the entire image. Only count
21 the edges that you find as an edge if both the inner detection
22 and outer detection match by a minimal distance constraint."

23 Do you see that?

24 A. I see it.

25 Q. And it gives the current constraint is three pixels. How

1 did you figure out what constraint to use for that?

2 A. So relevant to the context of which this sentence was
3 written, we forced the resolution on the server side or on the
4 camera side to -- to make the image four megapixels being sent
5 over to our systems. Some cameras would have like a six
6 megapixel or eight megapixel camera, but from the testing and
7 experimentation, the resolution that we needed for good corner
8 detection was at least four megapixels, but we would accept up
9 to two because some cameras just couldn't go higher.

10 Q. Okay. You don't -- as you sit here now, you can't say
11 whether in 2009 you had in mind a specific way to implement
12 monitoring criteria that would ensure that the image that was
13 captured when the criteria were met would be good enough to
14 credit funds to the customer?

15 A. I can't remember any specifics on that particular point
16 of interest.

17 Q. And so you can't -- you can't give me right now an
18 implementation of how to do monitoring criteria that would
19 ensure that the image that is selected -- or, I should say,
20 the image that's captured when the criteria are passed would
21 be good enough to credit funds to the customer's account.

22 A. I can't remember.

23 MR. STONE: That completes that deposition excerpt,
24 Your Honor.

25 THE COURT: All right. Thank you, counsel.

1 Ladies and gentlemen, it's 6:00. We're going to recess
2 for the day. We'll pick up with the next Defendant's witness
3 first thing in the morning.

4 I'll ask you as you leave the courtroom to go through the
5 jury room and leave your notebooks closed on the table there
6 so they'll be waiting for you next morning.

7 Please follow all my instructions about your conduct
8 during the trial, including, of course, not to discuss the
9 case with anyone in any way. Travel safely.

10 Please plan to be back tomorrow morning so that we can
11 start at 8:30. We were a little late starting this morning.
12 That was me, not you. But if you'll try to accommodate us,
13 we'll try to start as close to 8:30 as we can tomorrow
14 morning.

15 Have a good evening, travel safely to your homes, and the
16 jury is excused at this time for the evening.

17 (Whereupon, the jury left the courtroom.)

18 THE COURT: Be seated, please.

19 Counsel, for your information, as of now my records
20 indicate that the Plaintiff has 3 hours and 33 minutes
21 remaining and the Defendant has 3 hours and 30 minutes
22 remaining, so you're only the three minutes apart. It's clear
23 that we will finish all the evidence tomorrow.

24 And I'll be available in chambers to discuss any guidance
25 you might need on overnight issues. I would encourage you to

1 use your best efforts to keep those to a bare minimum, if any.
2 But if there are issues that cannot be reasonably resolved,
3 I'll be available to give you guidance in the morning before
4 we begin with the jury at 8:30.

5 Are there questions or anything outstanding that needs to
6 be raised with the Court before we recess for tonight?

7 MR. SHEASBY: Your Honor, I wanted to give you the
8 times on the Medina depositions.

9 THE COURT: Please do. Go to the podium so we'll
10 all hear it.

11 MR. SHEASBY: PNC, 19 minutes and 24 seconds; USAA,
12 1 minute and 37 seconds.

13 THE COURT: Okay. I gather Plaintiff's not aware of
14 anything else we need to take up?

15 MR. SHEASBY: Other than my request at the bench,
16 Your Honor.

17 THE COURT: That's being carried.

18 MR. SHEASBY: Thank you, Your Honor.

19 THE COURT: Anything from Defendant?

20 MR. STONE: Nothing further, Your Honor. Thank you.

21 THE COURT: All right. Are you planning to start
22 with Mr. Morris tomorrow, Mr. Stone?

23 MR. STONE: I want to assess it in light of the time
24 that we have remaining, but that would be my plan, Your Honor.

25 THE COURT: All right.

1 MR. STONE: But I need to assess it in light of
2 that.

3 THE COURT: Well, I'll be available in the morning
4 to discuss anything that comes up. I would like an indication
5 from counsel as to the order of witnesses before we start for
6 the day.

7 MR. STONE: Yes.

8 THE COURT: All right. Have a good evening.
9 Counsel. You are excused until tomorrow morning.

10 Court stands in recess.

11 (The proceedings were concluded at 6:05 p.m.)
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1 I HEREBY CERTIFY THAT THE FOREGOING IS A
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